



TUGAS AKHIR - RC141501

**PERENCANAAN DIMENSI SIGMA TANK SEBAGAI  
ALTERNATIF DALAM MENGHEMAT  
KETERSEDIAN PENYIRAMAN TANAMAN DI ITS**

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Institut Teknologi Sepuluh Nopember

Surabaya

2018

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UNDERGRADUATE THESIS - RC141501

**PLANNING SIGMA TANK DIMENSIONS AS AN  
ALTERNATIVE IN SAVING THE AVAILABILITY  
OF WATERING PLANTS IN ITS**

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Surabaya

2018

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**LEMBAR PENGESAHAN**  
**PERENCANAAN DIMENSI SIGMA TANK SEBAGAI**  
**ALTERNATIF DALAM MENGHEMAT**  
**KETERSEDIAAN PENYIRAMAN TANAMAN DI ITS**

**TUGAS AKHIR**

Diajukan untuk memenuhi salah satu syarat kelulusan pada  
Program Studi S-1 Lintas Jalur Departemen Teknik Sipil  
Fakultas Teknik Sipil, Lingkungan dan Kebumihan  
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Form AK/TA-04  
rev01

PROGRAM STUDI S-1 JURUSAN TEKNIK SIPIL FTSP - ITS  
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JUDUL TUGAS AKHIR	: Perencanaan Dimensi Sigma Tank Sebagai Attachment Dalam Menangkap Kecepatan Pengiriman Karaman di ITS
TANGGAL PROPOSAL	: 30 Januari - 2018
NO. SP-MMTA	:

NO	TANGGAL	KEGIATAN		PARAF ASISTEN
		REALISASI	RENCANA MINGGU DEPAN	
1.	19/02/18	Perhitungan Routing Inflow, outflow dan storage	Perhitungan Routing dan total error dimensi	
2.	26/02/18	<p>sambung tahun (2000)</p> <p>Untuk perhitungan</p> <p>mulai routing tahun (2000 - 2019)</p> <p>max 3 meter</p> <p>adanya saluran yg dimana</p> <p>slat tinggi &gt; 3m</p> <p>dipergunakan</p> <p>tidak perlu pakai pompa, cukup ada saluran untuk mengalirkan ke outlet terdekat</p>	<p>Perhitungan opsi</p> <p>B dan P di</p> <p>perbaikan</p> <p>perhitungan man</p> <p>salah</p>	    
3.	6/3/18	<p>Gambar area yang</p> <p>untuk catchment area</p> <p>ditunjukkan, gambar lokasi area ditunjukkan</p>	gambar!	
4.	12/3/18	<p>Detail di area (area yang</p> <p>salah belum diketahui</p> <p>titik 1 bisa lebih bisa juga 1 nya tergantung luas area yang ditunjukkan</p>	lokasi!	
5.	19/3/18	<p>lokasi di titik 1 karena beberapa pertimbangan</p> <p>catchment area</p>		
6.		<p>Perencanaan gambar dan saluran dengan cad)</p>	<p>Gambar Layout</p> <p>Bangunan pengalir</p> <p>air (atap) dan</p> <p>Reacana Storage</p>	






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rev01

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TANGGAL PROPOSAL	: 30-01-2018
NO. SP-MMTA	:

NO	TANGGAL	KEGIATAN		PARAF ASISTEN
		REALISASI	RENCANA MINGGU DEPAN	
(12)	31-01-2018	<p>Gambar skematik detail 5</p> <p>Banyolan</p> <p>• skala gambar dan jarak kelurahan</p> <p>• Pintu</p> <p>Gambar detail lain</p> <p>• RENCANA MMTA</p>		

INSTITUT TEKNOLOGI SEPULUH NOPEMBER  
FAKULTAS TEKNIK SIPIL, LINGKUNGAN DAN KEBUMIHAN  
**PROGRAM SARJANA LINTAS JALUR**  
DEPARTEMEN TEKNIK SIPIL FTSLK – ITS

**BERITA ACARA PENYELENGGARAAN UJIAN  
SEMINAR DAN LISAN  
TUGAS AKHIR**

Pada hari ini **Senin** tanggal **9 Juli 2018** jam **09.00 WIB** telah diselenggarakan **UJIAN SEMINAR DAN LISAN TUGAS AKHIR** Program Sarjana Lintas Jalur Departemen Teknik Sipil FTSLK-ITS bagi mahasiswa:




NRP	Nama	Judul Tugas Akhir
03111645000055	Jessica Elisabeth Sitorus	Perencanaan Dimensi Sigma Tank Sebagai Alternatif Dalam Menghemat Ketersediaan Penyiraman Tanaman di ITS

Dengan Hasil :

<input type="checkbox"/> Lulus Tanpa Perbaikan	<input type="checkbox"/> Mengulang Ujian Seminar dan Lisan
<input checked="" type="checkbox"/> Lulus Dengan Perbaikan	<input type="checkbox"/> Mengulang Ujian Lisan

Dengan perbaikan/penyempurnaan yang harus dilakukan adalah :

- *kesimpulan diperbaiki*  
- *penulisan dan referensi*

Tim Penguji (Anggota)	Tanda Tangan
Dr. Ir. Edijatno	
Ir. Bambang Sarwono, MSc	
M. Bagus Ansori, ST. MT	

Surabaya, 9 Juli 2018  
Dosen Pembimbing I

(Ketua)



**Dr. techn. Umboro Lasminto, ST. MSc**

Dosen Pembimbing 2  
(Sekretaris)

Dosen Pembimbing 3  
(Sekretaris)





# **PERENCANAAN DIMENSI SIGMA TANK SEBAGAI ALTERNATIF DALAM MENGHEMAT KETERSEDIAAN PENYIRAMAN TANAMAN DI ITS**

**Nama Mahasiswa** : Jessica Elisabeth Sitorus  
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**Dosen Konsultasi** : Dr.Tech. Umboro Lasminto .,M.Sc

## **ABSTRAK**

Institut Teknologi Sepuluh November di Surabaya sedang mengembangkan visi misi menjadi Eco-Campus yang berprinsip meningkatkan penghijauan dan membuat penampungan untuk mengatasi kekurangan ketersediaan air dalam penyiraman tanaman. Penyiraman tanaman di ITS menggunakan salah satu sumber yang berasal dari kolam rektorat dengan suplai dari PDAM. Kolam rektorat yang merupakan tampungan terbuka cukup membuat ketersediaan lahan berkurang. Selain itu, adanya potensi hujan yang cukup tinggi kerap berpotensi menyebabkan banjir di wilayah kampus ITS. Oleh karena itu, dibutuhkan tampungan berupa Sigma Tank yang merupakan tampungan bawah tanah sehingga mampu memanfaatkan ketersediaan lahan dan membantu memenuhi kebutuhan air PDAM.

Penelitian yang dilakukan adalah terkait metode pemanfaatan potensi air hujan. Sigma Tank atau dapat dikatakan pemanen air hujan merupakan tangki-tangki kecil dengan spesifikasi tertentu, terbuat dari bahan poly-propylene membentuk panel-panel. Sigma Tank termasuk sistem penyerapan yang kuat, awet, murah dan ramah lingkungan. Sistem kerjanya adalah menerima tampungan dari atap menuju inlet, tampungan dan outlet

untuk penyiraman tanaman dengan pompa. Sigma Tank memiliki keunikan yaitu disusun secara vertikal dan horizontal lalu disambung oleh kawat galvanis yang bertujuan untuk menjaga stabilitas geser. Penyusunan Sigma Tank dilakukan di bawah tanah yang sudah dilapisi oleh woven geotextile. Metode perencanaannya adalah dengan menghitung volume ketersediaan air melalui perhitungan terhadap luas atap bangunan, curah hujan harian dan koefisien pengaliran lalu menghitung volume kebutuhan air dan storage dengan metode Reservoir Routing. Adanya volume penampungan dan volume spesifikasi Sigma Tank dapat menentukan dimensi dan jumlah sigma Tank, sedangkan untuk perhitungan dimensi pipa inflow, saluran outflow untuk banjir dan suplai kebutuhan penyiraman menggunakan analisa hidrolika. Setelah itu, hasil akhir adalah kontrol gaya uplift dan perhitungan efisiensi biaya.

Hasil akhir dari penelitian adalah perencanaan dimensi Sigma Tank pada 4 lokasi yaitu sebesar 60 x 50 x 3 untuk Taman Alumni(FTSLK) ITS, FTK lalu 50 x 50 x 3 untuk perpustakaan dan robotika ITS, dimensi saluran inflow maksimum adalah 0.35 m untuk FTK, perpustakaan ITS, sedangkan 0.3 dan 0.4 m untuk Taman Alumni dan robotika ITS, saluran outflow untuk banjir adalah sebesar 1 , 0.6 dan 0.8 m serta untuk suplai kebutuhan penyiraman tanaman adalah 0.125 m, kontrol uplift saat kondisi penuh dan kosong adalah memiliki nilai  $f_s$  rata-rata sebesar 2.92 dan 1.79(>1.25), efisiensi biaya yang dapat dihemat oleh Sigma Tank dalam mensuplai kebutuhan air untuk penyiraman tanaman di ITS adalah sebesar Rp 1.691.820.000.

**Kata Kunci : *Sigma Tank, Konservasi Air, Pemanen Air Hujan, Reservoir Routing.***

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## **ABSTRAK**

### **Perencanaan Dimensi *Sigma Tank* Sebagai Alternatif dalam Menghemat Ketersediaan Penyiraman Tanaman di ITS**

**Oleh**

**Jessica Elisabeth Sitorus / 3116105055**

**Mahasiswa LJ S1 Teknik Sipil FTSP ITS**

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*Institut Teknologi Sepuluh November di Surabaya sedang mengembangkan visi misi menjadi Eco-Campus yang berprinsip meningkatkan penghijauan dan membuat penampungan untuk mengatasi kekurangan ketersediaan air dalam penyiraman tanaman. Penyiraman tanaman di ITS menggunakan salah satu sumber yang berasal dari kolam rektorat dengan suplai dari PDAM. Kolam rektorat yang merupakan tampungan terbuka cukup membuat ketersediaan lahan berkurang. Selain itu, adanya potensi hujan yang cukup tinggi kerap berpotensi menyebabkan banjir di wilayah kampus ITS. Oleh karena itu, dibutuhkan tampungan berupa Sigma Tank yang merupakan tampungan bawah tanah sehingga mampu memanfaatkan ketersediaan lahan dan membantu memenuhi kebutuhan air PDAM.*

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*air melalui perhitungan terhadap luas atap bangunan, curah hujan harian dan koefisien pengaliran lalu menghitung volume kebutuhan air dan storage dengan metode Reservoir Routing. Adanya volume penampungan dan volume spesifikasi Sigma Tank dapat menentukan dimensi dan jumlah sigma Tank, sedangkan untuk perhitungan dimensi pipa inflow, saluran outflow untuk banjir dan suplai kebutuhan penyiraman menggunakan analisa hidrolika. Setelah itu, hasil akhir adalah kontrol gaya uplift dan perhitungan efisiensi biaya.*

*Hasil akhir dari penelitian adalah perencanaan dimensi Sigma Tank pada 4 lokasi yaitu sebesar 60 x 50 x 3 untuk Taman Alumni(FTSLK) ITS, FTK lalu 50 x 50 x 3 untuk perpustakaan dan robotika ITS, dimensi saluran inflow maksimum adalah 0.35 m untuk FTK, perpustakaan ITS, sedangkan 0.3 dan 0.4 m untuk Taman Alumni dan robotika ITS, saluran outflow untuk banjir adalah sebesar 1 , 0.6 dan 0.8 m serta untuk suplai kebutuhan penyiraman tanaman adalah 0.125 m, kontrol uplift saat kondisi penuh dan kosong adalah memiliki nilai  $f_s$  rata-rata sebesar 2.92 dan 1.79(>1.25), efisiensi biaya yang dapat dihemat oleh Sigma Tank dalam mensuplai kebutuhan air untuk penyiraman tanaman di ITS adalah sebesar Rp 1.691.820.000.*

**Kata Kunci : *Sigma Tank, Konservasi Air, Pemanen Air Hujan, Reservoir Routing.***

## **ABSTRACT**

### **Planning Sigma Tank Dimensions As an Alternative to Save the Availability of Watering Plants in ITS**

**By**

**Jessica Elisabeth Sitorus / 3116105055**

**Student LJ S1 Civil Engineering FTSP ITS**

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*The Ten November Institute of Technology in Surabaya is developing a mission vision of Eco-Campus, which is principally promoting reforestation, absorption and shelter to cope with the shortage of water availability in planting water. Watering plants in the ITS using one source derived from the pond rectorate by using water supply from the taps. In addition, the potential for rain that is high enough to potentially cause flooding in the campus area of ITS and the potential for drought causes rainwater collection is required. Rainwater container offered is by using Sigma Tank. With the existence of Sigma Tank is one effort in water conservation which can save the cost of water supply which have been using supply from PDAM. The research conducted is the method of utilization of rain water potential. Sigma Tank or can be said rainwater harvesters are small tanks with certain specifications, made of poly-propylene material to form panels. Sigma Tank includes strong absorption system, durable, cheap and environmentally friendly. The system works is to receive a container from the roof to the inlet, storage and outlet for watering the plants. Sigma Tank has a uniqueness that is arranged vertically and horizontally then connected by galvanized wire which aims to maintain the stability of shear. Preparation of Sigma Tank is done underground which has been coated by woven geotextile. The method of planning is to calculate the volume of water availability through calculation of building roof area, daily rainfall and drainage coefficient then calculate the volume of water and storage needs by the method of Reservoir Routing. The existence of volume*

*of shelter and volume of specification of Sigma Tank can determine dimension and number of sigma Tank, while for inflow pipe dimension calculation, outflow channel for flood and supply of watering need using hydraulics analysis. After that, the end result is an uplift style control and cost efficiency calculation. The final result of this research is Sigma Tank dimension planning at 4 locations that is 60 x 50 x 3 for Alumni Garden (FTSLK) ITS, FTK then 50 x 50 x 3 for library and robotics ITS, maximum inflow channel dimension is 0.35 m for FTK, ITS library, whereas 0.3 and 0.4 m for Alumni Park and ITS robotics, outflow channel for flood is equal to 1, 0.6 and 0.8 m and for the supply of watering requirement of plants is 0.125 m, uplift control when full and empty condition is has the average fs value average of 2.92 and 1.79 (> 1.25), the cost efficiency saving by Sigma Tank in supplying water for planting water in ITS is Rp 1,691,820,000.*

***Keywords: Sigma Tank, Water Conservation, Rain Water Harvesting, Reservoir Routing or Rain Water Routing.***

## KATA PENGANTAR

Puji syukur kehadiran Tuhan Yang Maha Esa atas segala rahmat-NYA sehingga proposal tugas akhir dengan judul “Perencanaan Dimensi *Sigma Tank* Sebagai Alternatif dalam Menghemat Ketersediaan Penyiraman Tanaman di ITS “ dapat tersusun hingga selesai. Tidak lupa penulis juga mengucapkan banyak terimakasih atas bantuan dari pihak yang telah berkontribusi dengan memberikan sumbangan baik materi maupun pikirannya.

Adapun penyusunan Proposal Tugas Akhir ini dilakukan sebagai salah satu syarat penyusunan Tugas Akhir untuk Jurusan S1 Lintas Jalur Teknik Sipil, Fakultas Teknik Sipil dan Perencanaan, Institut Teknologi Sepuluh Nopember Surabaya. Dan selanjutnya proposal ini sebagai pertimbangan pihak terkait untuk digunakan sebagai pendukung pengerjaan Laporan Tugas Akhir.

Karena keterbatasan pengetahuan maupun pengalaman penulis, penulis yakin masih banyak kekurangan dalam Tugas Akhir ini. Oleh karena itu, penulis sangat mengharapkan saran dan kritik yang membangun dari pembaca demi kesempurnaan makalah ini.

Demikian yang bisa penulis sampaikan, semoga hasil dari penelitian ini dapat memberi manfaat kepada penulis maupun kepada pembaca. Akhir kata, penulis sampaikan terima kasih.

Surabaya, Desember 2017



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## DAFTAR ISI

<b>ABSTRAK.....</b>	<b>I</b>
<b>KATA PENGANTAR.....</b>	<b>XVIII</b>
<b>DAFTAR ISI.....</b>	<b>IV</b>
<b>DAFTAR GAMBAR.....</b>	<b>VII</b>
<b>DAFTAR TABEL.....</b>	<b>IX</b>
<b>BAB 1 PENDAHULUAN.....</b>	<b>1</b>
1.1 LATAR BELAKANG.....	1
1.2 RUMUSAN MASALAH.....	4
1.3 BATASAN MASALAH.....	4
1.4 MAKSUD DAN TUJUAN.....	4
1.5 MANFAAT.....	5
1.6 LOKASI.....	5
<b>BAB 2 TINJAUAN PUSTAKA.....</b>	<b>9</b>
2.1 ANALISA HIDROLOGI.....	9
2.1.1 DATA CURAH HUJAN.....	9
2.1.2 ANALISA CURAH HUJAN RATA-RATA.....	10
2.1.3 <i>Perhitungan Curah Hujan Periode Ulang</i> .....	12
2.1.4 <i>Curah Hujan Rencana</i> .....	12
2.1.5 <i>Koefisien Pengujian Data Curah hujan</i> .....	16
2.1.6 <i>Uji Kecocokan</i> .....	19
2.1.7 <i>Analisa Volume Ketersediaan Air</i> .....	22
2.2 ANALISA HIDROLIKA.....	27
2.2.1 <i>Perhitungan Kapasitas Tampungan( Sigma Tank)</i> .....	27
2.2.2 <i>Perhitungan Saluran Outflow</i> .....	30
2.3ANALISA POMPA.....	30
2.4 PERHITUNGAN KAPASITAS ST DNGAN RESERVOIR ROUTING.....	31
2.4.1 <i>Perhitungan Kapasitas Sigma Tank Dengan Neraca Air</i> ....	32
2.4.2 <i>Perhitungan Jumlah Sigma Tank</i> .....	33
2.5 PEMANEN AIR HUJAN ( RAIN WATER HARVESTING).....	34
2.5.1 <i>Pemanen Air Hujan dengan menggunakan Sigma Tank</i> ....	34
2.5.2 <i>Manfaat Panen Air Hujan dengan Sigma Tank</i> .....	36
2.5.3 <i>Sistem Kerja Sigma Tank</i> .....	36
2.5.4 <i>Desain Sigma Tank (tangki modular)</i> .....	37
2.5.5 <i>Bahan Sigma Tank dan Geomembran</i> .....	39
2.5.6 <i>Aplikasi Sigma Tank</i> .....	40
2.5.7 <i>Ukuran Tangki Modular Sigma Tank dan Spesifikasi</i> .....	40

2.5.8	<i>Metode Pelaksanaan Penggunaan Sigma Tank</i> .....	41
2.6	SIFAT-SIFAT FLUIDA.....	42
2.7	PERHITUNGAN GAYA UPLIFT (SIGMA TANK).....	43
2.8	ANALISA EFISIENSI BIAYA SIGMA TANK.....	44
<b>BAB 3</b>	<b>METODOLOGI.....</b>	<b>45</b>
3.1	STUDI LITERATUR.....	45
3.2	SURVEY LAPANGAN.....	45
3.3	PENGUMPULAN DATA.....	45
3.4	PENGOLAHAN DATA.....	46
3.4.1	<i>Neraca Air</i> .....	46
3.4.2	<i>Analisa Ketersediaan Air</i> .....	46
3.4.3	<i>Analisa Desain Penampung Air dan Saluran</i> .....	47
3.4.4	<i>Analisa Operasional Pompa</i> .....	48
3.4.5	<i>Analisa Perhitungan Routing dengan Reservoir Routing</i> ....	48
	<i>dan Neraca Air</i> .....	48
3.4.5	<i>Analisa Gaya Uplift</i> .....	48
3.4.6	<i>Analisa Biaya</i> .....	48
3.5	KESIMPULAN DAN SARAN.....	49
3.6	LANGKAH Pengerjaan.....	49
<b>BAB 4</b>	<b>ANALISA DAN PERHITUNGAN.....</b>	<b>51</b>
4.1	ANALISA DATA HUJAN.....	51
4.1.1	<i>Perhitungan Pemilihan Stasiun Hujan</i> .....	52
4.2	LAYOUT LOKASI.....	55
4.3	ANALISA ROUTING KETERSEDIAAN DAN KEBUTUHAN AIR ....	68
4.3.1	<i>Analisa Ketersediaan Air</i> .....	68
4.3.2	<i>Analisa Kebutuhan Air</i> .....	86
4.3.3	<i>Analisa Storage/Tampungan Air</i> .....	87
4.3.4	<i>Perhitungan Routing Air</i> .....	94
4.4	PERHITUNGAN DIMENSI DAN KEBUTUHAN SIGMA TANK .....	103
4.5	PERHITUNGAN PIPA INFLOW SIGMA TANK .....	108
4.6	PERHITUNGAN DIMENSI SALURAN OUTFLOW SIGMA TANK .....	123
4.6.1	<i>Pengelolaan Data Curah Hujan</i> .....	123
4.6.2	<i>Analisa Hujan Rata- Rata</i> .....	125
4.6.3	<i>Pengukuran Dispersi</i> .....	125
4.6.4	<i>Curah Hujan Rencana</i> .....	129
4.6.5	<i>Uji Kecocokan</i> .....	130
4.6.6	<i>Analisa Debit Banjir Rencana</i> .....	136
4.7	PERHITUNGAN DIMENSI BAK KONTROL .....	168
4.8	PERHITUNGAN UPLIFT SIGMA TANK .....	170

4.9 PERHITUNGAN EFISIENSI SIGMA TANK DENGAN PDAM .....	175
<b>BAB 5 KESIMPULAN DAN SARAN.....</b>	<b>177</b>
<b>SARAN.....</b>	<b>181</b>
<b>DAFTAR PUSTAKA.....</b>	<b>75</b>
<b>LAMPIRAN.....</b>	<b>75</b>

## **DAFTAR GAMBAR**

<b>GAMBAR 1.1</b> LOKASI ZONA PENYIRAMAN DI ITS.....	6
<b>GAMBAR 1.2</b> LOKASI DESAIN SIGMA TANK .....	7
 <b>GAMBAR 2.1</b> PENGUKURAN TINGGI CURAH HUJAN WILAYAH METODE ARITMATIKA .....	10
<b>GAMBAR 2.2</b> PENGUKURAN TINGGI CURAH HUJAN WILAYAH METODE POLIGON THIESSEN .....	11
<b>GAMBAR 2.3</b> GRAFIK HUBUNGAN INTENSTITAS HUJAN DENGAN WAKTU CURAH HUJAN .....	27
<b>GAMBAR 2.4</b> GRAFIK PENGALIRAN DENGAN BANTUAN POMPA .....	31
<b>GAMBAR 2.5</b> SIGMA TANK DAN BAGIAN INSTALASI.....	35
<b>GAMBAR 2.6</b> DESAIN DAN CARA KERJA SIGMA TANK .....	37
<b>GAMBAR 2.7</b> DESAIN UMUM SIGMA TANK .....	39
<b>GAMBAR 2.8</b> SIGMA TANK DAN GEOMEMBRAN .....	40
<b>GAMBAR 2.9</b> SPEK SIGMA TANK DAN BAGIAN INSTALASI .....	41
<b>GAMBAR 2.10</b> NILAI BERAT JENIS POLYPROPYLENE .....	44
 <b>GAMBAR 3.3</b> FLOWCHART.....	50
<b>GAMBAR 3.4</b> FLOWCHART.....	50
 <u><b>GAMBAR 4.1</b></u> GAMBAR AREA DENGAN THIESSEN .....	56
<u><b>GAMBAR 4.2</b></u> LAYOUT LOKASI.....	57
<u><b>GAMBAR 4.3</b></u> LAYOUT FTSLK ITS .....	58
<u><b>GAMBAR 4.4</b></u> LAYOUT FTK .....	62
<u><b>GAMBAR 4.5</b></u> LAYOUT ROBOTIKA ITS .....	65
<u><b>GAMBAR 4.6</b></u> LAYOUT PERPUSTAKAAN ITS .....	67
<u><b>GAMBAR 4.7</b></u> LOKASI CATCHMENT FTSLK ITS .....	77
<u><b>GAMBAR 4.8</b></u> LOKASI CATCHMENT FTK ITS.....	80
<u><b>GAMBAR 4.9</b></u> LOKASI CATCHMENT PERPUSTAKAAN ITS .....	82
<u><b>GAMBAR 4.10</b></u> LOKASI CATCHMENT ROBOTIKA ITS.....	84
<u><b>GAMBAR 4.11</b></u> LEBAR LOKASI PEMASANGAN SIGMA TANK DI ITS .....	83
<u><b>GAMBAR 4.12</b></u> PANJANG LOKASI PEMASANGAN SIGMA TANK TAMAN .	83
<u><b>GAMBAR 4.13</b></u> PANJANG LOKASI PEMASANGAN SIGMA TANK DI FTK .	84
<u><b>GAMBAR 4.14</b></u> LEBAR LOKASI PEMASANGAN SIGMA TANK DI FTK I....	84
<u><b>GAMBAR 4.15</b></u> LEBAR LOKASI SIGMA TANK DI PERPUSTAKAAN ITS ....	85
<u><b>GAMBAR 4.16</b></u> PANJANG LOKASI SIGMA TANK DI PERPUSTAKAAN ITS.	85
<u><b>GAMBAR 4.17</b></u> PANJANG LOKASI SIGMA TANK DI ROBOTIKA .....	86
<u><b>GAMBAR 4.18</b></u> LEBAR LOKASI SIGMA TANK DI ROBOTIKA .....	86

<b><u>GAMBAR 4.19</u></b>	GRAFIK OUTFLOW SIRAM TANAMAN DENGAN WAKTU .	86
<b><u>GAMBAR 4.20</u></b>	HUBUNGAN INTENSITAS DAN TC.....	160
<b><u>GAMBAR 4.21</u></b>	BROSUR KAPASITAS POMPA.....	170
<b>GAMBAR 5.1</b>	GRAFIK KETERSEDIAAN AIR ..... <b>ERROR! BOOKMARK NOT DEFINED.</b>	
<b>GAMBAR 5.2</b>	DIMENSI TANGKI (SIGMA TANK) <b>ERROR! BOOKMARK NOT DEFINED.</b>	
<b>GAMBAR 5.3</b>	GRAFIK LUAS LAHAN DAN LUAS TANGKI (SIGMA TANK) ..... 180 <b>ERROR! BOOKMARK NOT DEFINED.</b>	
<b>GAMBAR 5. 4</b>	GRAFIK JUMLAH KEBUTUHAN SIGMA TANK..... <b>ERROR! BOOKMARK NOT DEFINED.</b>	
<b>GAMBAR 5.5</b>	GRAFIK DIMENSI PIPA INFLOW DAN OUTFLOW..... <b>ERROR! BOOKMARK NOT DEFINED.</b>	

## DAFTAR TABEL

<b>TABEL 2.1</b> FAKTOR FREKUENSI DISTRIBUSI NORMAL .....	12
<b>TABEL 2.2</b> HUBUNGAN REDUKSI VARIAT RATA-RATA (YN) DAN DEVIASI STANDAR (SN) TERHADAP JUMLAH DATA (N).....	14
<b>TABEL 2.3</b> NILAI K UNTUK DISTRIBUSI LOG-PEARSON III.....	16
<b>TABEL 2.4</b> NILAI CS .....	17
<b>TABEL 2.5</b> NILAI CK.....	18
<b>TABEL 2.6</b> NILAI $X_{H^2}$ UNTUK UJI CHI KUADRAT.....	20
<b>TABEL 2.7</b> NILAI KRITIS $D_0$ UNTUK UJI SMIRNOV-KOLMOGOROV .....	22
<b>TABEL 2.8</b> KOEFISIEN LIMPASAN ATAU PENGALIRAN .....	23
<b>TABEL 2.9</b> KOEFISIEN KEKASARAN .....	26
<b>TABEL 2.10</b> KOEFISIEN KEKASARAN MANNING .....	29
<b>TABEL 2.11</b> ROUTING KAPASITAS SIGMA TANK .....	32
<b>TABEL 2.12</b> NERACA AIR .....	33
<b>TABEL 4.1</b> DATA STASIUN HUJAN KEPUTIH.....	51
<b>TABEL 4.2</b> JUMLAH STASIUN HUJAN DAN DAS .....	53
<b>TABEL 4.3</b> PERSENTASI LUAS STASIUN.....	54
<b>TABEL 4.4</b> PANJANG SALURAN T.ALUMNI .....	57
<b>TABEL 4.5</b> PANJANG SALURAN T.ALUMNI.....	58
<b>TABEL 4.6</b> PANJANG SALURAN T.ALUMNI.....	59
<b>TABEL 4.7</b> PANJANG SALURAN FTK.....	61
<b>TABEL 4.8</b> PANJANG SALURAN FTK.....	62
<b>TABEL 4.9</b> PANJANG SALURAN ROBOTIKA ITS .....	64
<b>TABEL 4.10</b> PANJANG SALURAN PERPUSTAKAAN ITS .....	66
<b>TABEL 4.11</b> PANJANG SALURAN PERPUSTAKAAN ITS .....	67
<b>TABEL 4.12</b> KETERSEDIAAN AIR FTSLK ITS (TAMAN ALUMNI ITS) ..	69
<b>TABEL 4.13</b> KETERSEDIAAN AIR FTSLK ITS (TAMAN ALUMNI) .....	70
<b>TABEL 4.14</b> KETERSEDIAAN AIR FTK ITS .....	71
<b>TABEL 4.15</b> KETERSEDIAAN AIR PERPUSTAKAAN ITS .....	72
<b>TABEL 4.16</b> KETERSEDIAAN AIR ROBOTIKA ITS.....	73
<b>TABEL 4.17</b> LUAS ATAP FTSLK ITS (TAMAN ALUMNI) .....	76
<b>TABEL 4.18</b> LUAS ATAP FTK ITS .....	78
<b>TABEL 4.19</b> LUAS ATAP PERPUSTAKAAN ITS .....	80
<b>TABEL 4.20</b> LUAS CATCHMENT ROBOTIKA ITS .....	82
<b>TABEL 4.21</b> HASIL PERHITUNGAN STORAGE TAMAN ALUMNI ITS .....	88
<b>TABEL 4.22</b> HASIL PERHITUNGAN STORAGE FTK ITS .....	90
<b>TABEL 4.23</b> STORAGE PERPUSTAKAAN ITS .....	91

<b>TABEL 4.24</b> HASIL PERHITUNGAN STORAGE ROBOTIKA ITS .....	92
<b>TABEL 4.25</b> HASIL ROUTING FTSLK (TAMAN ALUMNI ITS).....	96
<b>TABEL 4.26</b> HASIL ROUTING FTK ITS .....	99
<b>TABEL 4.27</b> HASIL ROUTING PERPUSTAKAAN .....	100
<b>TABEL 4.28</b> HASIL ROUTING ROBOTIKA ITS .....	102
<b>TABEL 4.29</b> DIMENSI SIGMA TANK FTSLK (TAMAN ALUMNI).....	103
<b>TABEL 4.30</b> DIMENSI SIGMA TANK DI PERPUSTAKAAN ITS.....	104
<b>TABEL 4.31</b> DIMENSI SIGMA TANK FTK ITS .....	105
<b>TABEL 4.32</b> DIMENSI SIGMA TANK ROBOTIKA ITS .....	105
<b>TABEL 4.33</b> SPESIFIKASI SIGMA TANK .....	106
<b>TABEL 4.34</b> JUMLAH KEBUTUHAN SIGMA TANK FTK .....	107
<b>TABEL 4.35</b> JUMLAH KEBUTUHAN SIGMA TANK FTSLK(TAMAN ALUMNI) .....	107
<b>TABEL 4.36</b> JUMLAH KEBUTUHAN SIGMA TANK ROBOTIKA .....	107
<b>TABEL 4.37</b> JUMLAH KEBUTUHAN SIGMA TANK PERPUSTAKAAN ITS .....	107
<b>TABEL 4.38</b> NILAI CATCHMENT, C, N, KEMIRINGAN DAN CURAH HUJAN .....	108
<b>TABEL 4.39</b> NILAI CATCHMENT, CURAH HUJAN, KOEFISIEN PENGALIRAN, N DAN KEMIRINGAN .....	109
<b>TABEL 4.40</b> REKAPITULASI HASIL HITUNGAN PIPA INFLOW FTSLK (TAMAN ALUMNI ) ITS .....	111
<b>TABEL 4.41</b> REKAPITULASI HASIL PERHITUNGAN PIPA INFLOW FTK ITS... ..	115
<b>TABEL 4.42</b> REKAPITULASI HASIL PERHITUNGAN PIPA INFLOW ROBOTIKA ITS .....	118
<b>TABEL 4.43</b> REKAPITULASI HASIL PERHITUNGAN PIPA INFLOW PERPUSTAKAAN ITS .....	120
<b>TABEL 4.44</b> REKAP CURAH HUJAN MAKSIMUM TAHUNAN.....	123
<b>TABEL 4.45</b> HASIL PERHITUNGAN DISTRIBUSI NORMAL DAN GUMBEL .....	125
<b>TABEL 4.46</b> SYARAT Cs DAN Ck PADA GUMBEL DAN NORMAL .....	127
<b>TABEL 4.47</b> HASIL PERHITUNGAN LOG PEARSON .....	127
<b>TABEL 4.48</b> SYARAT Cs DAN Ck PADA METODE LOG PEARSON III ....	129
<b>TABEL 4.49</b> NILAI K BERDASARKAN Cs DAN PUH .....	129
<b>TABEL 4.50</b> NILAI K BERDASARKAN PELUANG .....	131
<b>TABEL 4.51</b> HASIL PERHITUNGAN Oi DAN Ei .....	133
<b>TABEL 4.52</b> NILAI DERAJAT KEPERCAYAAN .....	134
<b>TABEL 4.53</b> HASIL PERHITUNGAN UJI SMIRNOV KOLMOGOROV.....	135
<b>TABEL 4.54</b> NILAI DO .....	136
<b>TABEL 4.55</b> KOEFISIEN LIMPASAN UNTUK METODE RASIONAL .....	137
<b>TABEL 4.56</b> NILAI KOEFISIEN HAMBATAN (Nd) .....	139
<b>TABEL 4.57</b> NILAI Tc SALURAN OUTFLOW 1 FTSLK(TAMAN ALUMNI).....	140
<b>TABEL 4.58</b> NILAI Tc SALURAN OUTFLOW 2 FTSLK(TAMAN ALUMNI).....	140



<b>TABEL 4.59</b> NILAI Tc SALURAN OUTFLOW 3 FTSLK (TAMAN ALUMNI)	140
<b>TABEL 4.60</b> NILAI Tc SALURAN OUTFLOW 1 ROBOTIKA .....	141
<b>TABEL 4.61</b> NILAI Tc SALURAN OUTFLOW 2 ROBOTIKA ITS .....	141
<b>TABEL 4.62</b> NILAI Tc SALURAN OUTFLOW 1 PERPUSTAKAAN.....	141
<b>TABEL 4.63</b> NILAI Tc SALURAN OUTFLOW 2 PERPUSTAKAAN.....	142
<b>TABEL 4.64</b> NILAI Tc SALURAN OUTFLOW 1 FTK .....	142
<b>TABEL 4.65</b> NILAI Tc SALURAN OUTFLOW 2 FTK .....	142
<b>TABEL 4.66</b> NILAI Tc SALURAN OUTFLOW 3 FTK .....	142
<b>TABEL 4.67</b> NILAI Tc SALURAN OUTFLOW 4 FTK .....	143
<b>TABEL 4.68</b> REKAP Tc SALURAN OUTFLOW 1 PADA FTSLK ITS(TAMAN ALUMNI) .....	144
<b>TABEL 4.69</b> REKAP Tc SALURAN OUTFLOW 2 PADA FTSLK ITS(TAMAN ALUMNI) .....	146
<b>TABEL 4.70</b> REKAP Tc SALURAN OUTFLOW 3 PADA FTSLK ITS(TAMAN ALUMNI) .....	147
<b>TABEL 4.71</b> REKAP Tc SALURAN OUTFLOW 1 PADA FTK ITS .....	148
<b>TABEL 4.72</b> REKAP Tc SALURAN OUTFLOW 2 PADA FTK ITS.....	149
<b>TABEL 4.73</b> REKAP Tc SALURAN OUTFLOW 3 PADA FTK ITS .....	150
<b>TABEL 4.74</b> REKAP Tc SALURAN OUTFLOW 4 PADA FTK ITS .....	150
<b>TABEL 4.75</b> REKAP Tc SALURAN OUTFLOW 1 PADA ROBOTIKA ITS ...	151
<b>TABEL 4.76</b> REKAP Tc SALURAN OUTFLOW 2 PADA ROBOTIKA ITS ...	152
<b>TABEL 4.77</b> REKAP Tc SALURAN OUTFLOW 1 PADA PERPUSTAKAAN ITS	153
<b>TABEL 4.78</b> REKAP Tc SALURAN OUTFLOW 2 PADA PERPUSTAKAAN ITS	154
<b>TABEL 4.79</b> INTENSITAS SALURAN OUTFLOW 1 FTSLK (TAMAN ALUMNI ITS) .....	156
<b>TABEL 4.80</b> INTENSITAS SALURAN OUTFLOW 2 FTSLK (TAMAN ALUMNI ITS).....	156
<b>TABEL 4.81</b> INTENSITAS SALURAN OUTFLOW 3 FTSLK (TAMAN ALUMNI ITS) .....	156
<b>TABEL 4.82</b> INTENSITAS SALURAN OUTFLOW 1 FTK ITS .....	156
<b>TABEL 4.83</b> INTENSITAS SALURAN OUTFLOW 2 FTK ITS.....	157
<b>TABEL 4.84</b> INTENSITAS SALURAN OUTFLOW 3 FTK ITS.....	157
<b>TABEL 4.85</b> INTENSITAS SALURAN OUTFLOW 4 FTK ITS .....	157
<b>TABEL 4.86</b> OUTFLOW 1 ROBOTIKA ITS.....	157
<b>TABEL 4.87</b> INTENSITAS SALURAN OUTFLOW 2 ROBOTIKA ITS .....	157
<b>TABEL 4.88</b> INTENSITAS SALURAN OUTFLOW 1 PERPUSTAKAAN ITS .	158
<b>TABEL 4.89</b> INTENSITAS SALURAN OUTFLOW 2 PERPUSTAKAAN ITS .	158
<b>TABEL 4.90</b> HASIL PERHITUNGAN DEBIT HIDROLOGI.....	159
<b>TABEL 4.91</b> REKAPITULASI DIMENSI SALURAN OUTFLOW( U-DITCH) ..	162

<b>TABEL 4.92</b> REKAPITULASI DIMENSI SALURAN OUTFLOW DENGAN KAPASITAS MAKSIMUM ROUTING HARIAN SELAMA 1 JAM.....	163
<b>TABEL 4.93</b> REKAPITULASI DIMENSI SALURAN OUTFLOW DENGAN KAPASITAS MAKSIMUM ROUTING HARIAN SELAMA 1.5 JAM.....	164
<b>TABEL 4.94</b> DEBIT HIDROLOGI FTK ITS .....	165
<b>TABEL 4.95</b> REKAPITULASI DIMENSI SALURAN OUTFLOW DENGAN KAPASITAS ROUTING HARIAN MAKSIMUM SELAMA 2 JAM.....	166
<b>TABEL 4.96</b> NILAI DEBIT HIDROLOGI PADA SALURAN OUTFLOW UNTUK PENYIRAMAN TANAMAN .....	167
<b>TABEL 4.97</b> REKAP DIMENSI BAK KONTROL.....	169
<b>TABEL 4.98</b> DIMENSI SIGMA TANK ROBOTIKA ITS .....	170
<b>TABEL 4.99</b> NILAI BERAT JENIS DAN ELEVASI .....	171
<b>TABEL 4.100</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK KOSONG DI PERPUSTAKAAN ITS.....	172
<b>TABEL 4.101</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK PENUH DI PERPUSTAKAAN ITS.....	173
<b>TABEL 4.102</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK KOSONG DI ROBOTIKA .....	173
<b>TABEL 4.103</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK PENUH DI ROBOTIKA .....	173
<b>TABEL 4.104</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK KOSONG DI FTSLK(TAMAN ALUMNI) .....	174
<b>TABEL 4.105</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK PENUH DI FTSLK(TAMAN ALUMNI) .....	174
<b>TABEL 4.106</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK KOSONG DI FTK	175
<b>TABEL 4.107</b> HASIL UPLIFT SAAT KONDISI SIGMA TANK PENUH DI FTK	175
<b>TABEL 4.108</b> REKAP DIMENSI SIGMA TANK DI TAMAN ALUMNI ITS..	175
<b>TABEL 4.109</b> REKAP DIMENSI SIGMA TANK DI PERPUSTAKAAN ITS..	176
<b>TABEL 4.110</b> REKAP DIMENSI SIGMA TANK DI FTK ITS .....	176
<b>TABEL 4.111</b> REKAP DIMENSI SIGMA TANK DI ROBOTIKA ITS .....	176

## **BAB 1**

### **PENDAHULUAN**

#### **1.1 Latar Belakang**

Institut Teknologi Sepuluh November merupakan salah satu Institut di Indonesia yang menerapkan sistem kampus yang ramah lingkungan atau dapat dikenal dengan istilah *Eco-Campus*. Tujuan dari *Eco-Campus* sendiri adalah menyediakan lahan untuk penghijauan atau penanaman tumbuhan. Dengan adanya tumbuhan mampu mencegah dampak polusi dan meningkatkan sistem penyerapan.

Peningkatan kuantitas tanaman dan kesuburan membutuhkan penyiraman secara berkala dengan waktu yang sudah ditetapkan yaitu setiap hari dan berhenti selama 2-3 hari saat hujan. Jadwal penyiraman adalah 2 shift yaitu jam 5 pagi sampai setengah 12 siang(shift 1) dan 3 sore sampai 9 malam (shift 2). Penyiraman dilakukan dengan menggunakan transportasi truk penyedia air dengan kapasitas 5000-6000 liter/hari/tangki dengan waktu 6-6.5 jam/hari/12 tangki sehingga total kapasitas untuk penyiraman tanaman pinggiran/tepi luar di seluruh ITS adalah 6000 liter kali 12 tangki sama dengan 72000 liter. Lokasi suplai kebutuhan air yang ditinjau adalah tanaman di wilayah Institut Teknologi Sepuluh November Surabaya yang mendapat suplai air dari salah satu sumber yaitu kolam rektorat ITS dengan volume kolam sebesar 723.608,6 Liter. Luas taman pinggiran keseluruhan di wilayah ITS adalah 6329.44 m<sup>2</sup> yang membutuhkan volume kebutuhan air untuk tanaman sebesar 72000 liter. Suplai air untuk penyiraman tanaman yang melalui kolam rektorat, menggunakan suplai dari PDAM. Dengan adanya suplai air terus menerus dari PDAM terhadap tanaman-tanaman di sekitar ITS, diprediksikan besarnya kapasitas dan biaya pemakaian air yang menggunakan suplai dari PDAM. Selain permasalahan tersebut, diprediksikan terdapat juga

permasalahan seperti kekeringan saat kemarau serta adanya keterbatasan suplai dari PDAM.

Kondisi saat ini yang terjadi di lokasi yang ditinjau adalah salah satu wilayah di Surabaya yang memiliki potensi hujan cukup tinggi. Hal tersebut dapat dijadikan alasan yang kuat untuk terciptanya sistem penampungan di ITS terkhususnya pada lokasi rencana awal yang ditinjau yaitu taman alumni ITS, lahan depan perpustakaan ITS, lahan FTK ITS dan Robotika ITS. Sistem penampungan yang diharapkan adalah sistem penampungan yang ramah lingkungan, mudah dalam segi pelaksanaan dan pemeliharaan serta memiliki permukaan yang tertutup agar dapat dilalui oleh kendaraan dan sebagainya. Hal-hal tersebut menyebabkan sistem penampungan yang diharapkan tidak sama dengan sistem penampungan yang biasanya digunakan. Adapun sistem penampungan yang biasa digunakan adalah sistem penampungan yang terbuat dari beton dan tidak memiliki penutup permukaan atas.

Dengan adanya permasalahan seperti ketersediaan air dalam penyiraman tanaman- tanaman di lokasi yang ditinjau dan kekeringan yang mungkin diprediksikan terjadi pada beberapa waktu yang akan datang, maka dibutuhkan solusi. Salah satu solusi yang digunakan adalah dengan merencanakan salah satu teknologi resapan air hujan yaitu sumur resapan modern/*Sigma Tank*. *Sigma tank* adalah sebuah modul sumur resapan modern terbuat dari plastik yang ringan berbentuk kubus/kotak yang dapat berfungsi sebagai sistem resapan air hujan di dalam tanah. Modul disusun kait mengait secara horisontal dan vertikal untuk mendapatkan stabilitas yang besar serta dilapisi dengan bahan geotekstil, geogrid atau bahan kedap air beserta panel-panel yang disusun di dalamnya. Adanya bahan kedap air berguna untuk menampung air hujan agar tidak terserap dalam tanah sehingga ketersediaan air yang ditampung dapat digunakan untuk mengairi tanaman-tanaman di seluruh ITS. *Sigma Tank* memiliki keunikan yaitu disusun

secara vertikal dan horisontal lalu disambung oleh kawat galvanis yang bertujuan untuk menjaga stabilitas geser pada *Sigma Tank*. Penyusunan *Sigma Tank* dilakukan di bawah tanah yang sudah dilapisi oleh geomembran yang merupakan bagian dari produk geotekstil. Selain itu, keunikan lainnya adalah adanya daya tekanan air yang diakibatkan oleh pompa dan saluran outlet pada *Sigma Tank*. *Sigma tank* memiliki keunggulan lain seperti murah, kuat, awet dan mudah dalam pelaksanaan serta pemeliharanya. Prosedur sistem kerja *Sigma Tank* adalah dengan menerima air melalui saluran inlet dan mengeluarkan air melalui saluran outlet. Saluran inlet maupun outlet harus diposisikan di atas terhadap sigma tank yang berfungsi sebagai penampung. Prosedur kerja *Sigma tank* adalah menerima air dari hujan yang jatuh ke atap menuju saluran (pipa) lalu menuju ke inlet, air menuju ke penampungan lalu akan dikeluarkan menuju outlet pada saat pompa dinyalakan. Sistem kerja *Sigma Tank* akan dibantu dengan adanya pompa dalam mengeluarkan air untuk kebutuhan penyiraman tanaman. Pengoperasionalan pompa akan diatur pada saat buka dan tutupnya. *Sigma Tank* terbagi atas beberapa jenis tipe yaitu *Single Modular*, *Double Modular*, *Triple Modular* dan *Quad Modular*. Tipe-tipe tersebut memiliki spesifikasi atau ukuran dimensi yang berbeda-beda. Penentuan spesifikasi tersebut menghasilkan keunggulan/kelebihan pada *Sigma Tank* yaitu memudahkan pelaksanaan di lapangan dan mengurangi biaya. Selain itu, dikarenakan *Sigma Tank* merupakan penampungan bawah tanah yang tertutup, maka dapat dijadikan sebagai lahan parkir, jalan pejalan kaki dan lainnya.

Oleh karena itu, tugas akhir ini akan membahas *Sigma Tank* yang diharapkan menjadi salah satu alternatif yang mampu menampung air hujan, mengatasi adanya kekeringan dan mampu menjadi wadah selain kolam rektorat yang membantu suplai untuk penyiraman tanaman di kampus ITS.

## 1.2 Rumusan Masalah

Adapun beberapa permasalahan yang terjadi adalah sebagai berikut :

1. Berapa kebutuhan air yang digunakan untuk penyiraman tanaman di kampus ITS?
2. Berapa ketersediaan air yang dapat ditampung oleh *Sigma Tank*?
3. Berapa dimensi tampungan?
4. Bagaimana desain tampungan?
5. Bagaimana kontrol uplift pada tampungan
6. Berapa besar biaya PDAM yang dapat dihemat dengan adanya supply dari *Sigma Tank*?

## 1.3 Batasan Masalah

1. Tidak mengaitkan limbah dan menguraikan kualitas air.
2. Tidak membahas materi atau perhitungan geoteknik *engineering* seperti perhitungan daya dukung, perkuatan tanah, material geotekstil baik perkuatan dan perencanaanya. Hanya membahas uplift.
3. Tidak membahas metode pelaksanaan pemasangan *Sigma Tank* beserta instalasinya secara detail.
4. Tidak membahas biaya pengerjaan pelaksanaan *Sigma Tank* beserta instalasinya. Hanya membahas biaya yang dapat dihemat dari suplai PDAM oleh *Sigma Tank*.
5. Tidak menghitung bak kontrol secara detail. Mengasumsikan dimensi bak kontrol sama dengan saluran outflow.
6. Menghitung saluran outflow untuk banjir dengan konsep drainase dan tidak sampai menghitung outlet terakhirnya.
7. Hanya merencanakan dimensi saluran inflow dengan pipa tanpa membahas head loss ataupun pipa yang secara detail.

## 1.4 Maksud dan Tujuan

1. Menentukan volume kebutuhan air yang dikeluarkan

untuk penyiraman tanaman serta perhitungan debit kebutuhan air.

2. Menentukan volume ketersediaan air yang dapat ditampung oleh *Sigma Tank*.
3. Melakukan perhitungan dimensi tampungan.
4. Melakukan perhitungan perencanaan desain tampungan.
5. Melakukan perhitungan kontrol uplift pada tampungan.
6. Menghitung biaya yang dapat dihemat dengan adanya *Sigma Tank*.

### 1.5 Manfaat

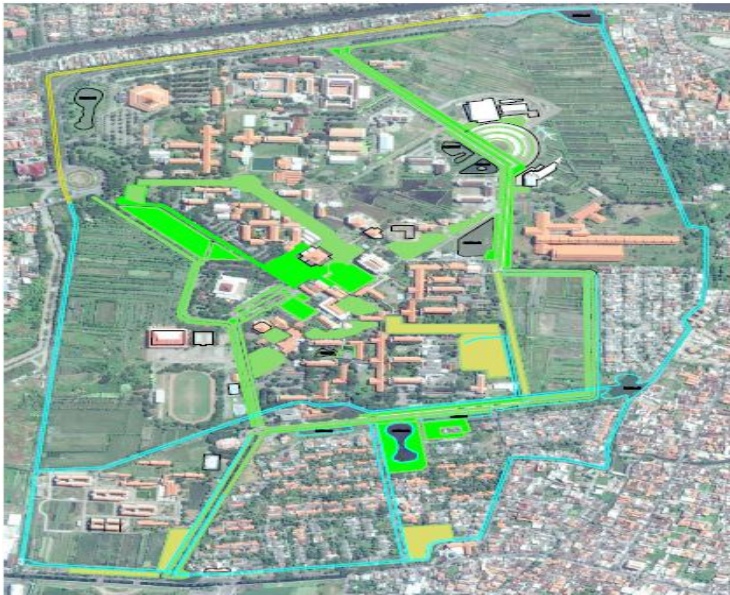
Manfaat yang diharapkan dari penulisan laporan Tugas Akhir ini antara lain :

- a. Menambah pengetahuan dan pemahaman penulis maupun pembaca mengenai topik yang dibahas dalam laporan Tugas Akhir ini.
- b. Melatih berpikir, menuangkan apa yang ada di pikiran melalui tulisan serta melatih kreatifitas dalam menulis.
- c. Menjadi referensi dan pembanding bagi pembaca dalam menyusun pembahasan mengenai topik yang sama dengan Laporan Tugas Akhir ini.

### 1.6 Lokasi

Lokasi penelitian atau studi ini adalah berada di Institut Teknologi Sepuluh November Surabaya. Rencana awal /asumsi awal lokasi yang ditinjau oleh penulis adalah berada di lahan depan perpustakaan ITS, lahan sebelah Fakultas Teknik Kelautan ITS, lahan sebelah robotika ITS dan Taman Alumni ITS. Lokasi-lokasi tersebut merupakan lokasi rencana awal didesainnya *Sigma Tank* beserta instalasinya. Hal-hal tersebut terjadi dikarenakan harus dilakukan dahulu perhitungan routing atau *Reservoir Routing* sehingga diperoleh besarnya tampungan, jumlah tampungan dan lokasi yang akan didesain

dengan menggunakan *Sigma Tank*. Berikut adalah peta zona penyiraman tanaman yang berada di pinggiran seluruh wilayah ITS. Zona yang dimaksud adalah zona yang berwarna hijau muda dengan luas sebesar 6329.44 m<sup>2</sup>. Lokasi wilayah penyiraman dapat dilihat pada Gambar 1.1 berikut.



**Gambar 1.1** Lokasi Zona Penyiraman di ITS  
(Sumber : Sarana Prasarana ITS)



Untuk lokasi awal atau rencana awal pemasangan *Sigma Tank* dan instalasinya adalah seperti Gambar 1.2 dibawah ini.



**Gambar 1.2 Lokasi Desain Sigma Tank**  
(Sumber : Google Earth )

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## **BAB 2**

### **TINJAUAN PUSTAKA**

#### **2.1 Analisa Hidrologi**

Analisa hidrologi yang terdiri dari berbagai tahapan memiliki tujuan untuk menentukan nilai curah hujan harian, intensitas hujan, koefisien pengaliran dan nilai luas atap pada *Sigma Tank* (penampung hujan) di taman sebelah parkir perpustakaan ITS yang akan menghasilkan output berupa dimensi *Sigma Tank*. Dalam analisa hidrologi ini diperlukan data curah hujan harian selama 15 tahun, koordinat stasiun hujan, peta lokasi dan peta tata guna lahan.

##### **2.1.1 Data Curah Hujan**

Data Curah hujan yang dipakai adalah data curah hujan harian dari tahun 1990-2014 dan diperoleh dari satu stasiun hujan yaitu stasiun hujan Keputih. Pemilihan penggunaan stasiun hujan Keputih adalah dikarenakan lokasi yang ditinjau memiliki nilai luas sebesar  $\leq 250$  Ha. Hal tersebut mengacu pada peraturan sebagai berikut.

1. Pemakaian satu stasiun hujan bila luas DAS  $\leq 250$  ha
2. Pemakaian dengan metode artimatik jika luas DAS 250-50.000 ha serta jika terdapat 2-3 stasiun hujan terdekat.
3. Pemakaian dengan Metode Thiessen jika stasiun-stasiun hujan tidak merata dan luas DAS 120.000-500.000 ha
4. Pemakaian dengan Metode Ishoyet jika luas DAS  $> 500.000$  ha

Data curah hujan dalam bentuk harian dapat diubah menjadi bentuk jam-jaman dengan menggunakan Metode Mononobe dengan rumus sebagai berikut.

$$R_t = \frac{R_{24}}{T} \times \left(\frac{T}{t}\right)^{2/3} \quad (2.1)$$

Dimana :

$R_t$  = Rata-rata hujan sampai jam ke  $t$  (mm/jam)

$R_{24}$  = Curah hujan efektif dalam 1 hari = 1 mm

T = Waktu hujan (jam)

t = lamanya hujan (jam)

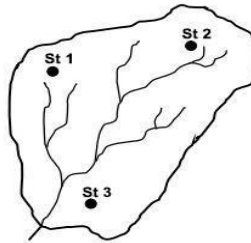
## 2.1.2 Analisa Curah Hujan Rata-Rata

Analisa Curah hujan rata-rata dibagi menjadi 3 metode yaitu

### 2.1.1.1 Aritmatika

Metode aritmatika adalah metode perhitungan curah hujan yang paling sederhana. Metode ini dilakukan dengan merata-ratakan semua jumlah curah hujan maksimum yang ada pada wilayah yang ditinjau.

Berikut contoh pengukuran curah hujan wilayah aritmatika dan gambar yang dapat dilihat pada Gambar 2.1.



**Gambar 2.1** Pengukuran Tinggi Curah Hujan Wilayah  
Metode Aritmatika

(Sumber : Hidrologi Terapan )

Perhitungan curah hujan wilayah dengan metode aritmatika dapat dihitung dengan rumus :

$$R = \frac{1}{n} (R_1 + R_2 + \dots + R_n) \quad (2.2)$$

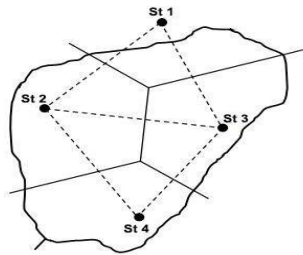
Dimana :

R<sub>1</sub>, R<sub>2</sub>, ... R = curah hujan pada stasiun 1,2,3, ....., n.

N = Jumlah Data

### 2.1.1.2 Poligon Thiessen

Perhitungan curah hujan dengan Metode Poligon Thiessen ini cocok untuk daerah dengan tingkat persebaran stasiun hujan tidak merata dalam satu Das. Cara perhitungan dengan Metode Poligon Thiessen adalah menghubungkan stasiun-stasiun yang berpengaruh pada daerah tersebut dengan suatu garis sehingga membentuk poligon segitiga, lalu menarik sumbu-sumbu dari poligon yang akan membentuk perpotongan. Perpotongan tersebut akan membentuk luasan daerah pengaruh dari setiap stasiun. Berikut contoh pengukuran curah hujan wilayah Poligon Thiessen dan gambar yang dapat dilihat pada Gambar 2.2.



*Gambar 2.2 Pengukuran Tinggi Curah Hujan Wilayah Metode Poligon Thiessen  
(Sumber : Hidrologi Terapan )*

Perhitungan curah hujan wilayah dengan metode polygon thiesen dapat dihitung dengan rumus :

$$R = \frac{R_1.A_1 + R_2.A_2 + R_3.A_3 + \dots + R_n.A_n}{A_1 + A_2 + A_3 + \dots + A_n} \quad (2.3)$$

Dimana :

R = Hujan rata – rata (mm).

R<sub>1</sub>, R<sub>2</sub>, ... R<sub>n</sub> = curah hujan pada stasiun 1,2,3, ..., n.

A<sub>1</sub>, A<sub>2</sub>, ... A<sub>n</sub> = luas poligon stasiun 1,2,3, ..., n.

### 2.1.3 Perhitungan Curah Hujan Periode Ulang

Perhitungan curah hujan periode ulang adalah untuk menentukan besarnya curah hujan maksimum yang akan terjadi pada periode ulang yang diinginkan. Periode ulang bisa mencakup periode ulang 2 tahun, 5 tahun, 10 tahun, 25 tahun, 50 tahun dan 100 tahun. Perhitungan ini berguna untuk perencanaan saluran outflow pada Sigma Tank.

### 2.1.4 Curah Hujan Rencana

Curah hujan rencana adalah prediksi terjadinya curah hujan yang tinggi atau maksimum **yang** terjadi pada periode ulang tertentu. Adapun metode yang dipakai adalah metode distribusi peluang sebagai berikut.

#### 2.1.4.1 Metode Distribusi Normal

Metode Distribusi Normal merupakan metode yang cukup banyak digunakan dalam statistika.

Rumusan yang dipakai adalah sebagai berikut.

$$X = \bar{X} + k \cdot S \quad (2.4)$$

Dimana:

$X$	=	nilai varian yang diharapkan terjadi
$\bar{X}$	=	Nilai rata-rata hitung curah hujan
$S$	=	Standart deviasi
$K$	=	Faktor frekuensi, merupakan fungsi dari peluang atau periode ulang dan tipe model matematik dari distribusi peluang yang digunakan untuk analisis peluang.

*Tabel 2.1 Faktor Frekuensi Distribusi Normal*

Periode Ulang	Peluang	K
1.001	0.999	-3.05
1.11	0.901	-1.28
2	0.500	0
2.5	0.400	0.5
3.33	0.300	0.52
4	0.250	0.67
5	0.200	0.84
10	0.100	1.28
20	0.051	1.64
50	0.020	2.05
100	0.010	2.33
200	0.005	2.58
500	0.002	2.88
1000	0.001	3.09

#### 2.1.4.2 Metode Distribusi Gumbel

Rumusan yang dipakai adalah :

$$X = \bar{X} + k. S \quad (2.5)$$

$$K = \frac{Y_t - Y_n}{S_n} \quad (2.6)$$

$$Y_t = \ln \left[ \ln \left( \frac{T}{T-1} \right) \right] \quad (2.7)$$

Dimana:

- $X$  = nilai varian yang di harapkan terjadi.
- $\bar{X}$  = nilai rata-rata hitung varian.
- $S$  = Standar deviasi.
- $Y_t$  = nilai reduksi varian dari variable yang diharapkan terjadi pada periode ulang tertentu (hubungan antara periode ulang T dan Y dapat dilihat pada rumus di atas).
- $Y_n$  = nilai rata-rata dari reduksi varian, nilainya tergantung dari jumlah data (n) dan dapat dilihat pada tabel 2.2.

$S_n$  = deviasi standart dari reduksi varian  
nilainya tergantung dari jumlah data  
(n) dan dapat dilihat pada tabel 2.2.

Untuk mencari nilai besaran  $Y_n$  dan  $S_n$  dapat dilihat pada Tabel 2.2 berikut.

***Tabel 2.2 Hubungan Reduksi Variat Rata-Rata ( $Y_n$ ) dan Deviasi Standar ( $S_n$ ) Terhadap Jumlah Data ( $n$ )***

n	$Y_n$	$S_n$
10	0,4592	0,9496
11	0,4996	0,9676
12	0,5053	0,9933
13	0,5070	0,9971
14	0,5100	1,0095
15	0,5128	1,0206
16	0,5157	1,0316
17	0,5181	1,0411
18	0,5202	1,0493
19	0,5220	1,0565
20	0,5236	1,0628
21	0,5252	1,0696
22	0,5268	1,0754
23	0,5283	1,0811
24	0,5296	1,0864
25	0,5309	1,0915
26	0,5320	1,1961
27	0,5332	1,1004
28	0,5343	1,1047
29	0,5353	1,1086
30	0,5362	1,1124

(Soewarno, 1995. Hal 127;128;129)



### 2.1.4.3 Metode Distribusi Log Pearson Type III

Untuk menghitung curah hujan rencana dalam periode ulang tertentu dengan Metode Distribusi Log Pearson Type III dapat dipakai perumusan sebagai berikut:

$$\log X = \overline{\log X} + k \cdot \overline{S \log X} \quad (2.8)$$

$$\overline{\log X} = \frac{\sum \log x}{n} \quad (2.9)$$

$$\overline{S \log X} = \sqrt{\frac{\sum (\log x - \overline{\log X})^2}{n-1}} \quad (2.10)$$

$$Cs = \frac{n \sum (\log x - \overline{\log X})^3}{(n-1)(n-2)(\overline{S \log X})^3} \quad (2.11)$$

Keterangan :

$\log X$  = perkiraan nilai logaritma yang diharapkan terjadi dengan periode ulang tertentu.

$\overline{\log X}$  = nilai rata-rata.

$N$  = jumlah data.

$\overline{S \log X}$  = nilai deviasi standar dari  $\log X$ .

$Cs$  = nilai kemencengan.

Untuk mendapatkan nilai  $X$  yang diharapkan terjadi pada periode tertentu, hitung anti log dari  $\log X$  sesuai dengan nilai  $Cs$  nya. Berikut dapat dilihat nilai  $Cs$  dan  $K$  pada tabel 2.3.

(Soewarno, 1995. Hal 143)

**Tabel 2.3 Nilai K untuk Distribusi Log-Pearson III**

Kemencengan (CS)	Periode Ulang (tahun)							
	2	5	10	25	50	100	200	1000
	Peluang (%)							
	50	20	10	4	2	1	0,5	0,1
3,0	-0,360	0,420	1,180	2,278	3,152	4,051	4,970	7,250
2,5	-0,360	0,518	1,250	2,262	3,048	3,845	4,652	6,600
2,2	-0,330	0,574	1,284	2,240	2,970	3,705	4,444	6,200
2,0	-0,307	0,609	1,302	2,219	2,912	3,605	4,298	5,910
1,8	-0,282	0,643	1,318	2,193	2,848	3,499	4,147	5,660
1,6	-0,254	0,675	1,329	2,163	2,780	3,388	3,990	5,390
1,4	-0,225	0,705	1,337	2,128	2,706	3,271	3,828	5,110
1,2	-0,195	0,732	1,340	2,087	2,626	3,149	3,661	4,820
1,0	-0,164	0,758	1,340	2,043	2,542	3,022	3,489	4,540
0,9	-0,148	0,769	1,339	2,018	2,498	2,957	3,401	4,395
0,8	-0,132	0,780	1,336	1,998	2,453	2,891	3,312	4,250
0,7	-0,116	0,790	1,333	1,967	2,407	2,824	3,223	4,105
0,6	-0,099	0,800	1,328	1,939	2,359	2,755	3,132	3,960
0,5	-0,083	0,808	1,323	1,910	2,311	2,686	3,041	3,815
0,4	-0,066	0,816	1,317	1,880	2,261	2,615	2,949	3,670
0,3	-0,050	0,824	1,309	1,849	2,211	2,544	2,856	3,525
0,2	-0,033	0,830	1,301	1,818	2,159	2,472	2,763	3,380
0,1	-0,017	0,836	1,292	1,785	2,107	2,400	2,670	3,235
0,0	0,000	0,842	1,282	1,751	2,054	2,326	2,576	3,090
-0,1	0,017	0,836	1,270	1,761	2,000	2,252	2,482	2,950
-0,2	0,033	0,850	1,258	1,680	1,945	2,178	2,388	2,810
-0,3	0,050	0,853	1,245	1,643	1,890	2,104	2,294	2,675
-0,4	0,066	0,855	1,231	1,606	1,834	2,029	2,201	2,540
-0,5	0,083	0,856	1,216	1,567	1,777	1,955	2,108	2,400
-0,6	0,099	0,857	1,200	1,528	1,720	1,880	2,016	2,275
-0,7	0,116	0,857	1,183	1,488	1,663	1,806	1,926	2,150
-0,8	0,132	0,856	1,166	1,448	1,606	1,733	1,837	2,035
-0,9	0,148	0,854	1,147	1,407	1,549	1,660	1,749	1,910
-1,0	0,164	0,852	1,128	1,366	1,492	1,588	1,664	1,800
-1,2	0,195	0,844	1,086	1,282	1,379	1,449	1,501	1,625
-1,4	0,225	0,832	1,041	1,198	1,270	1,318	1,351	1,465
-1,6	0,254	0,817	0,994	1,116	1,166	1,197	1,216	1,280
-1,8	0,282	0,799	0,945	1,035	1,069	1,087	1,097	1,130
-2,0	0,307	0,777	0,895	0,959	0,980	0,990	1,000	1,000
-2,2	0,330	0,752	0,844	0,888	0,900	0,905	0,907	0,910
-2,5	0,360	0,711	0,771	0,793	0,798	0,799	0,800	0,802
-3,0	0,396	0,636	0,660	0,666	0,666	0,667	0,667	0,668

### 2.1.4.4 Metode Distribusi Log Normal

Distribusi normal Log normal merupakan hasil perubahan dari distribusi normal, yaitu dengan mengubah nilai variat X menjadi nilai logaritmik variat X.

Rumus yang dipakai adalah sebagai berikut :

$$Rt = Xr + Kt.Sx \quad (2.12)$$

Dimana:

Rt = Besarnya curah hujan yang mungkin terjadi pada periode ulang T tahun.

Xr = Curah hujan rata-rata.

Kt = Standart variabel untuk periode ulang tahun (dapat dilihat pada tabel 2.1).

Sx = Standar Deviasi.

### 2.1.5 Koefisien Pengujian Data Curah hujan

#### 2.1.5.1 Standart Deviasi

Nilai atau rumus standart deviasi adalah sebagai berikut.

$$S = \sqrt{\frac{\sum (X_i - \bar{X})^2}{n-1}} \quad (2.13)$$

Dimana :

S = Deviasi standart.

$X_i$  = Nilai varian ke I ( $A_i/A$ ).

$\bar{X}$  = Nilai rata-rata varian.

n = Jumlah data.

$A_i$  = Luas daerah yang dibatasi oleh dua isohyet.

A = Luas daerah aliran.

### 2.1.5.2 Koefisien Skewness (CS)

Kemencengan (skewness) adalah suatu nilai yang menunjukkan derajat ketidaksimetrisme dari suatu bentuk distribusi.

Rumus :

$$Cs = \frac{\frac{n}{(n-2)(n-1)} \sum_{i=1}^n (X_i - \bar{X})^3}{S^3} \quad (2.14)$$

Dimana :

$Cs$  = Koefisien Skewness (dapat dilihat pada tabel 2.4).

$X_i$  = Nilai curah hujan ke I.

$\bar{X}$  = Nilai rata-rata curah hujan.

n = Jumlah data hujan.

S = Deviasi standar.

**Tabel 2.4 Nilai  $Cs$**

Distribusi	Syarat Nilai
Distribusi Normal	$Cs \approx 0$
Distribusi Gumbel	$Cs \leq 1,1396$
Distribusi Log Person Type III	$Cs \pm 0$

### 2.1.5.3 Koefisien Kurtosis (Ck)

Pengukuran kurtosis dimaksud untuk mengukur keruncingan dari bentuk kurva distribusi, yang umumnya dibandingkan dengan distribusi normal.

Rumus :

$$Ck = \frac{n^2 \sum (Xi - \bar{X})^4}{(n-1)(n-2)(n-3)S^4} \quad (2.15)$$

Dimana :

Ck = Koefisien Kurtosis. (dapat dilihat pada tabel 2.5)

Xi = Nilai varian ke I.

X = Nilai rata-rata curah hujan.

n = Jumlah data hujan.

S = Deviasi standar.

*Tabel 2.5 Nilai Ck*

Distribusi	Syarat Nilai
Distribusi Normal	$Ck \approx 3$
Distribusi Gumbel	$Ck \leq 5,4002$
Distribusi Log Person Type III	$Ck \pm 0$

### 2.1.5.4 Koefisien Variasi (Cv)

Koefisien variasi adalah perbandingan antara simpangan rata-rata dengan nilai mean (nilai rata-rata). Koefisien variasi merupakan salah satu parameter dari distribusi frekuensi. Distribusi memiliki fungsi untuk memperoleh probabilitas besaran curah hujan rencana dalam berbagai periode ulang.

Rumus :

$$Cv = \frac{Sx}{\bar{Xr}} \quad (2.16)$$

Dimana :

Sx = Standart Deviasi.

Xr = Nilai curah hujan rata-rata.

## 2.1.6 Uji Kecocokan

Tujuan dari uji kecocokan adalah untuk melakukan pengujian kecocokan antara distribusi frekuensi sampel, dengan fungsi distribusi peluang. Ada dua cara uji kecocokan yang dilakukan dalam analisa kali ini, yaitu :

### 2.1.6.1 Uji Chi-Kuadrat

Tujuan dari uji *Chi-Kuadrat* adalah untuk menentukan apakah data curah hujan yang ada sesuai dengan jenis sebaran (distribusi) yang dipilih.

Rumus:

$$X_h^2 = \sum_{i=1}^G \frac{(O_i - E_i)^2}{E_i} \quad (2.17)$$

Dimana :

$X_h^2$  = Parameter *Chi-Kuadrat* terhitung.

G = Jumlah sub kelompok.

$O_i$  = Jumlah nilai pengamatan pada sub kelompok ke i.

$E_i$  = Jumlah nilai teoritis pada sub kelompok ke i.

Hasil dalam pengujian *Chi Kuadrat* adalah  $X_h^2 < X_h^2$  dari tabel uji chi kuadrat. Tabel uji chi kuadrat dapat dilihat seperti tabel 2.6 dibawah ini.

Tabel 2.6 Nilai  $\chi^2$  Untuk Uji Chi Kuadrat

dk	Taraf signifikansi					
	50%	30%	20%	10%	5%	1%
1	0,455	1,074	1,642	2,706	3,841	6,635
2	1,386	2,408	3,219	4,605	5,991	9,210
3	2,366	3,665	4,642	6,251	7,815	11,341
4	3,357	4,878	5,989	7,779	9,488	13,277
5	4,351	6,064	7,289	9,236	11,070	15,086
6	5,348	7,231	8,558	10,645	12,592	16,812
7	6,346	8,383	9,803	12,017	14,067	18,475
8	7,344	9,524	11,030	13,362	15,507	20,090
9	8,343	10,656	12,242	14,684	16,919	21,666
10	9,342	11,781	13,442	15,987	18,307	23,209
11	10,341	12,899	14,631	17,275	19,675	24,725
12	11,340	14,011	15,812	18,549	21,026	26,217
13	12,340	15,119	16,985	19,812	22,362	27,688
14	13,339	16,222	18,151	21,064	23,685	29,141
15	14,339	17,322	19,311	22,307	24,996	30,578
16	15,338	18,418	20,465	23,542	26,296	32,000
17	16,338	19,511	21,615	24,769	27,587	33,409
18	17,338	20,601	22,760	25,989	28,869	34,805
19	18,338	21,689	23,900	27,204	30,144	36,191
20	19,337	22,775	25,038	28,412	31,410	37,566
21	20,337	23,858	26,171	29,615	32,671	38,932
22	21,337	24,939	27,301	30,813	33,924	40,289
23	22,337	26,018	28,429	32,007	35,172	41,638
24	23,337	27,096	29,553	33,196	36,415	42,980
25	24,337	28,172	30,675	34,382	37,652	44,314
26	25,336	29,246	31,795	35,563	38,885	45,642
27	26,336	30,319	32,912	36,741	40,113	46,963
28	27,336	31,391	34,027	37,916	41,337	48,278
29	28,336	32,461	35,139	39,087	42,557	49,588
30	29,336	33,530	36,250	40,256	43,773	50,892

### 2.1.6.2 Uji Smirnov-Kolmogorov

Uji kecocokan *Smirnov-Kolmogorov* sering disebut juga uji kecocokan non parametik (non parametric test) karena pengujiannya tidak menggunakan fungsi distribusi tertentu.

Prosedurnya adalah sebagai berikut :

1. Menentukan nilai probabilitas atau peluang. Berikut adalah rumus untuk menentukan probabilitas adalah sebagai berikut.

$$P = \frac{m}{n+1}$$

Dimana :

P = probabilitas atau peluang.

m = nomor urut peringkat data.

n = banyaknya data atau jumlah kejadian.

2. Urutkan data (dari besar ke kecil atau sebaliknya) dan tentukan besarnya peluang dari masing-masing data

tersebut.

$X_1 \quad P(X_1)$

$X_2 \quad P(X_2)$

$X_m \quad P(X_m)$

$X_n \quad P(X_n)$

3. Tentukan nilai masing-masing peluang teoritis dari hasil penggambaran data (persamaan distribusinya).

$X_1 \quad P'(X_1)$

$X_2 \quad P'(X_2)$

$X_m \quad P'(X_m)$

$X_n \quad P'(X_n)$

4. Dari kedua nilai peluang tersebut tentukan selisih terbesarnya antara peluang pengamatan dengan peluang teoritis.

$$D = \text{maksimum } [P(X_m) - P'(X_m)]$$

5. Berdasarkan koefisien nilai kritis (*Smirnov-Kolmogorov*), tentukan harga  $D_0$  (lihat tabel 2.7).

Apabila  $D$  lebih kecil dari  $D_0$  maka distribusi teoritis yang digunakan untuk menentukan persamaan distribusi dapat diterima, apabila  $D$  lebih besar  $D_0$  maka distribusi yang digunakan untuk menentukan persamaan distribusi tidak dapat diterima. Berikut adalah nilai  $D_0$  yang dapat dilihat pada tabel 2.7.

**Tabel 2.7** Nilai Kritis *Do* Untuk Uji Smirnov-Kolmogorov

N	$\alpha$			
	0,20	0,10	0,05	0,01
5	0,45	0,51	0,56	0,67
10	0,32	0,37	0,41	0,49
15	0,27	0,30	0,34	0,40
20	0,23	0,26	0,29	0,36
25	0,21	0,24	0,27	0,32
30	0,19	0,22	0,24	0,29
35	0,18	0,20	0,23	0,27
40	0,17	0,19	0,21	0,25
45	0,16	0,18	0,20	0,24
50	0,15	0,17	0,19	0,23
N >	<u>1,07</u>	<u>1,22</u>	<u>1,36</u>	<u>1,63</u>
50	N <sup>0,5</sup>	N <sup>0,5</sup>	N <sup>0,5</sup>	N <sup>0,5</sup>

Catatan :  $\alpha$  = derajat kepercayaan

### 2.1.7 Analisa Volume Ketersediaan Air

Volume ketersediaan air adalah volume air yang dapat ditangkap oleh atap gedung-gedung lokasi yang ditinjau sebagai lokasi desain *Sigma Tank*. Rumus yang digunakan untuk menghitung volume ketersediaan air adalah melalui (Permen PU,2009) sebagai berikut.

$$V = R \times A \times K \quad (2.18)$$

Dimana

V = Volume air yang tertampung (m<sup>3</sup>).

A = Luas Atap Bangunan (m<sup>2</sup>).

K = Koefisien Pengaliran.

R = Curah hujan harian (m).

Nilai koefisien pengaliran dapat dilihat pada Tabel 2.6.



### 2.1.7.1 Koefisien Aliran Permukaan

Koefisien limpasan/ pengaliran adalah variabel untuk menentukan besarnya limpasan permukaan tersebut dimana penentuannya didasarkan pada kondisi daerah pengaliran dan karakteristik hujan yang jatuh di daerah tersebut.

*Tabel 2.8 Koefisien Limpasan atau Pengaliran*

Business	
Perkotaan	0,70 – 0,95
Pinggiran	0,50 – 0,70
Perumahan	
rumah tunggal	0,30 – 0,50
multiunit, terpisah	0,40 – 0,60
multiunit, tergabung	0,60 – 0,75
perkampungan	0,25 – 0,40
Apartemen	0,50 – 0,70
Industri	
Ringan	0,50 – 0,80
Berat	0,60 – 0,90
Perkerasan	
aspal dan beton	0,70 – 0,95
batu bata, paving	0,50 – 0,70
Atap	0,75 – 0,95
Halaman, tanah berpasir	
datar 2%	0,05 – 0,10
rata-rata 2 – 7%	0,10 – 0,15
curam, 7%	0,15 – 0,20
Halaman, tanah berat	
datar 2%	0,13 – 0,17
rata-rata 2 – 7%	0,18 – 0,22
curam, 7%	0,25 – 0,35
Halaman kereta api	0,10 – 0,35

*Sumber : (Hidrologi Terapan)*

Lanjutan Tabel 2.8 Koefisien Aliran C

Tipe daerah Aliran	Koefisien aliran, C
Rerumputan	
Tanah pasir, datar 2%	0,5– 0,1
Tanah pasir, sedang 2-7%	0,1 – 0,15
Tanah pasir, curam 7%	0.15-0.2
Tanah gemuk, datar 2%	0,13 – 0,17
Tanah gemuk, sedang, 2-7%	0,18 – 0,22
Perdagangan	
Daerah kota lama	0.75-0.95
Daerah Pinggiran	0.50-0.70
Perumahan	
Daerah Single Family	0.30-0.50
Multi unit terpisah	0.40-0.60
Multi unit tertutup	0.60-0.75
Suburban	0.25-0.40
Daerah apartemen	0.50-0.70
Industri	
Daerah ringan	0,50 – 0,80
Daerah berat	0,60 – 0,90
Taman, kuburan	0.10-0.25
Tempat Bermain	0,20 – 0,35
Halaman kereta api	0.20-0.40
Daerah tidak dikerjakan	0.10-0.30
Jalan : Beraspal	0,70 – 0,95
Beton	0.80-0.95
Batu	0.70-0.85
Atap	0,75 – 0,95

*Sumber : (Hidrologi Terapan)*

Lanjutan Tabel 2.8

Tipe daerah Aliran	Koefisien Aliran C
Hutan	
Datar, 0-5 %	0.10-0.40
Bergelombang, 5-10%	0.25-0.50

*Sumber : (Hidrologi Terapan)*

### 2.1.7.2 Waktu Konsentrasi

Waktu konsentrasi ( $t_c$ ) adalah waktu pengaliran air dari titik terjauh pada lahan hingga masuk pada saluran terdekat sampai pada tempat keluaran DAS (titik kontrol). Perhitungan waktu konsentrasi ini mempengaruhi besar kecilnya nilai intensitas hujan ( $I$ ) yang terjadi. Berikut adalah rumus yang dikembangkan oleh kirpich (1940) yang dapat ditulis sebagai berikut :

$$t_c = t_o + t_f \quad (2.19)$$

$$t_o = 1.44 \times \left( nd \times \frac{L_o}{\sqrt{S}} \right)^{0.467} \quad (2.20)$$

$$t_f = \frac{L}{V} \quad (2.21)$$

Dimana :

$t_c$  = waktu konsentrasi (*jam*).

$t_o$  = *overland flow time (inlet time)* adalah waktu yang diperlukan oleh air untuk mengalir di atas permukaan tanah, dari titik terjauh pada suatu daerah pengaliran (*catchment area*) sampai ke titik saluran yang di tinjau.

$T_f$  = *Channel flow time* adalah waktu yang diperlukan oleh air untuk mengalir di sepanjang saluran sampai ke titik kontrol di bagian hilir yang ditinjau.

$L_o$  = Jarak dari titik terjauh ke inlet (m).

$nd$  = Koefisien hambatan setara koefisien

- kekasaran (dapat dilihat pada tabel 2.9).  
 S = Kemiringan daerah pengaliran.  
 L = Panjang saluran (meter).  
 V = Kecepatan aliran dalam saluran (m/det ).

**Tabel 2.9 Koefisien Kekasaran**

Jenis Permukaan	$n_d$
Permukaan impervious dan licin	0.02
Tanah padat terbuka dan licin	0.10
Permukaan sedikit berumput, tanah dengan tanaman berjajar, tanah terbuka kekasaran sedang	0.20
Padang rumput	0.40
Lahan dengan pohon-pohon musim gugur	0.60
Lahan dengan pohon-pohon berdaun, hutan lebat, lahan berumput tebal	0.80

### 2.1.7.3 Intensitas Hujan

Nilai intensitas hujan suatu wilayah dapat ditentukan berdasarkan data curah hujan dan durasi (lama hujan) tertentu. Data tersebut dapat diperoleh dari stasiun pencatat hujan yang mampu mencatat tinggi hujan setiap waktunya. Perhitungan intensitas hujan dengan cara monobe dipakai untuk menghitung intensitas hujan harian.

$$I = \frac{R_{24}}{24} \left( \frac{24}{t_c} \right)^{2/3} \quad (2.22)$$

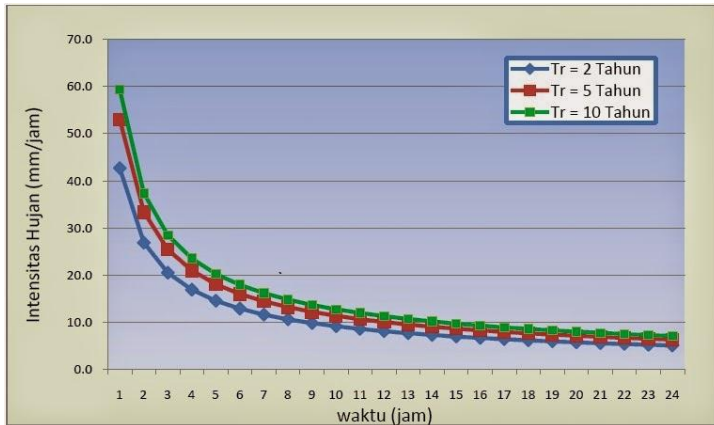
Dimana:

I = Intensitas Hujan (mm/jam).

$R_{24}$  = Curah hujan harian maksimal (mm).

$t_c$  = Waktu Konsentrasi (jam).

Dalam menghitung debit, terdapat hubungan antara intensitas hujan dengan lamanya waktu curah hujan. Hubungan tersebut dapat dilihat melalui grafik pada Gambar 2.3 di bawah ini.



**Gambar 2.3** Grafik hubungan *Intensitas Hujan* dengan *Waktu Curah Hujan*

## 2.2 Analisa Hidrolika

Analisa Hidrolika ini sebagai pembanding dari analisa hidrologi supaya mengetahui perbandingan debit antara hidrolika dan hidrologi, untuk perencanaan saluran sebaiknya debit hidrolika  $\geq$  debit ketersediaan air. Analisa hidrolika dipakai terkhusus untuk perencanaan saluran yang akan membawa air hujan dari atap menuju ke *Sigma Tank*/penampungan.

### 2.2.1 Perhitungan Kapasitas Tampungan( *Sigma Tank*) dan Saluran Talang/Pipa

Untuk mengetahui kapasitas atau volume tampungan terdapat pada *Sigma Tank* adalah dengan menentukan Debit hidrologi dan Debit hidrolika. Debit hidrolika harus dicek terlebih dahulu  $\geq$  Qhidrologi. Persyaratan tersebut berguna untuk menentukan luas penampang saluran yang membawa air hujan dari atap menuju ke penampungan/sigma tank. Berikut rumus yang dipakai :

$$V \text{ ketersediaan} = R \times A \times C \quad (2.23)$$

$$V \text{ Sigma Tank} = P \times L \times T \quad (2.24)$$

$$Q_{hidrolika} = A1 \times V \quad (2.25)$$

$$V = \frac{1}{n} \times R^{\frac{2}{3}} \cdot I^{\frac{1}{2}} \quad (2.26)$$

$$R = \frac{A}{P1} \quad (2.27)$$

Dimana

Q = kapasitas tampung saluran (m<sup>3</sup>/det).

V = kecepatan air dalam saluran  
(m<sup>2</sup>/detik).

V *Sigma Tank* = Volume *Sigma Tank* keseluruhan  
(m<sup>3</sup>).

P = Panjang (m).

L = Lebar (m).

T = Kedalaman (m).

A1 = luas penampang basah saluran  
talang / pipa (m<sup>2</sup>).

P1 = keliling penampang basah saluran  
(m).

n = koefisien kekasaran saluran talang.

I = kemiringan energi saluran.

R = Curah hujan harian (mm).

C = koefisien pengaliran.

I = Intensitas hujan (mm/jam).

A = Luas Atap (m<sup>2</sup>).

Setelah didapat dimensi *Sigma Tank* berupa panjang, lebar dan kedalaman, maka dapat ditentukan jumlah *Sigma Tank* yang dipakai sesuai spesifikasi dimensi yang ada.

Untuk nilai koefisien manning dapat dilihat pada Tabel 2.10.

*Tabel 2.10 Koefisien Kekasaran Manning*

No	Jenis Material	Koefisien Manning (n)
I	Saluran dengan Lining	
	Beton Aspal	0,014
	Exposed Prefabricated Concrate	0,015
	Asphalt	0,018 – 0,022
	Beton Semen	0,013
	Kayu	0,017
II	Saluran Tanah	
	Lurus dan bersih tanpa cekungan	0,025 – 0,022
	Lurus dan bersih tanpa cekungan tetapi agak berumput dan berbatu	0,03 – 0,04
	Berbelok dengan beberapa cekungan dan pendangkalan	0,035 – 0,05
	Sangat Berumput	0,05 – 0,08
III	Pipa	
	Asbeston Semen	0,09
	Beton	0,01 – 0,017
	Cast Iron, Coated	0,013
	Cast Iron, Uncoated	

(Sumber : Soewarno, 1995)

Untuk perencanaan talang / pipa yang dipakai sebagai saluran inflow, memiliki standart nilai kemiringan, kecepatan dan koefisien kekasaran tersendiri.

Berikut adalah standart nilainya.

1. Untuk nilai kemiringan pada pipa adalah minimal 1% - 2%  
( berdasarkan SNI Plumbing 03-7065-2005)

2. Untuk standart nilai kecepatan pada pipa adalah maksimum 3-5 m/s dan minimum 0.3 m/s (berdasarkan Sukarmadijaya, et al, 1978)
3. Untuk koefisien kekasaran pada pipa adalah seperti tabel 2.11 berikut.

*Tabel 2.11 Koefisien Kekasaran Pipa*

No	Jenis Saluran	Koefisien Kekasaran Manning (n )
1	Pipa Besi Tanpa lapisan	0,012 - 0,015
1.1	Dengan lapisan semen	0,012 - 0,013
1.2	Pipa Berlapis gelas	0,011 - 0,017
2	Pipa Asbestos Semen	0,010 - 0,015
3	Saluran Pasangan batu bata	0,012 - 0,017
4	Pipa Beton	0,012 - 0,016
5	Pipa baja Spiral & Pipa Kelingan	0,013 - 0,017
6	Pipa Plastik halus ( PVC)	0,002 - 0,012
7	Pipa Tanah Liat ( <i>Vitrified clay</i> )	0,011 - 0,015

### 2.2.2 Perhitungan Saluran Outflow

Perhitungan saluran outflow untuk mengatasi banjir menggunakan analisa hidrolika sama seperti perencanaan inflow talang/pipa. Outflow terdapat 2 yaitu untuk penyiraman tanaman dan banjir. Untuk penyiraman tanaman, memiliki perhitungan sama dengan inflow. Untuk outflow banjir juga sama namun, menggunakan U-ditch dan konsep drainase.

Saluran U-ditch memiliki standart nilai kecepatan yaitu tidak dapat melebihi 1.5 m/s.

### 2.3 Analisa Pompa

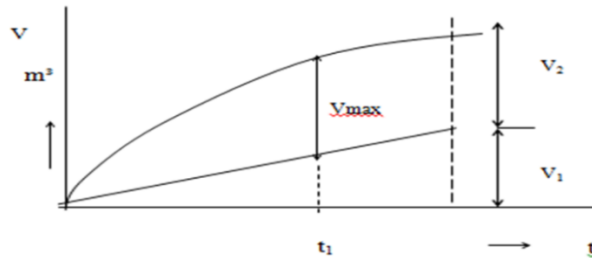
Pompa berfungsi untuk membantu mengeluarkan air untuk kebutuhan penyiraman tanaman. Analisa pompa yang dilakukan adalah menentukan kapasitas pompa yang tidak dapat sepenuhnya mengandalkan sistem pengaliran secara gravitasi sebagai faktor pendorong.

Ada beberapa faktor yang mempengaruhi penggunaan pompa antara lain:

1. Debit Air
2. Pengoperasian Pompa
3. Kapasitas Pompa



Berikut adalah gambar grafik yang menjelaskan tentang hubungan volume inflow, outflow dan volume tampungan terhadap operasional pompa dapat dilihat pada Gambar 2.4.



**Gambar 2.4** Grafik Pengaliran Dengan Bantuan Pompa  
Sumber : (Modul Ajar Busem)

Dimana :

$V$  = Volume limpasan total ( $m^3$ ).

$V_1$  = Volume yang dibuang dengan bantuan pompa dengan debit konstan ( $m^3$ ).

$V_2$  = Volume akhir tampungan ( $m^3$ ).

$V_{maks}$  = Volume maksimum busem/Sigma Tank ( $m^3$ ).

## 2.4 Perhitungan Kapasitas Sigma Tank Dengan Menggunakan Reservoir Routing

*Reservoir routing* adalah proses perhitungan dengan input debit inflow dan waktu untuk menghasilkan jumlah yang ditampung, debit yang dikeluarkan dengan elevasi tertentu.

Perhitungan *Reservoir Routing* dapat digunakan untuk menghitung jumlah penampungan dan penjelasan terkait waktu untuk penyiraman tanaman.

Prinsip perhitungan *Reservoir Routing* adalah air yang masuk (I) akan mengalami penampungan/ storage dalam kurun waktu tertentu dan ditambah dengan adanya outflow.

Rumus yang digunakan :

$$I = S(t) + O$$

Dimana :

$I$  = Debit Inflow ( $\text{m}^3/\text{s}$ ).

$S$  = Storage/ tampungan ( $\text{m}^3$ ).

$O$  = Debit Outflow ( $\text{m}^3/\text{s}$ ).

#### 2.4.1 Perhitungan Kapasitas Sigma Tank Dengan Neraca Air

Perhitungan ketersediaan air hujan dan kapasitas penampungan air hujan berdasarkan Permen PU adalah dengan menggunakan routing atau rumusan neraca air sebagai berikut (mengacu pada Tabel 2.12).

*Tabel 2.12 Routing Kapasitas Sigma Tank*

Bulan	Hari	Curah hujan harian (mm)	Luas Atap ( $\text{m}^2$ )	Kebutuhan penyiraman tanaman/hari ( $\text{m}^3$ )	Koef Run Off	Suplai air ( $\text{m}^3$ )	Kekurangan Air ( $\text{m}^3$ )	Kelebihan Air ( $\text{m}^3$ )
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)

*Sumber : (Permen PU )*

Dimana :

$$g = f \times d \times c \quad (2.28)$$

$e$  = (diperoleh dari data kebutuhan penyiraman tanaman  $72 \text{ m}^3$ ) atau  $(b \times \text{kebutuhan air})$ .

$h$  = apabila  $e > g$

$i$  = apabila  $g > e$

$$\text{Kapasitas tangki PAH} = \sum (i) \\ \sum (i) \text{ atau } V \text{ Sigma Tank} = P \times L \times T \quad (2.29)$$

Dimana :

$P$  = Panjang Sigma Tank

$L$  = Lebar Sigma Tank

$T$  = Kedalaman Sigma Tank

Cek hasil hitungan :

$$\begin{aligned}
 &= \sum V \text{ suplai} - \sum \text{Kebutuhan air} \\
 &= \sum \text{kelebihan air} - \sum \text{kekurangan air} \quad (2.30)
 \end{aligned}$$

Setelah ditentukan kapasitas tangki dan dilakukan routing, maka kapasitas tangki dimasukkan ke dalam neraca air sebagai berikut (mengacu pada Tabel 2.13).

**Tabel 2.13 Neraca Air**

Bulan	Suplai (m <sup>3</sup> )	Kebutuhan (m <sup>3</sup> )	Akhir (m <sup>3</sup> )	Terbuang (m <sup>3</sup> )
(a)	(b)	(c)	(d)	(e)

*Sumber : (Permen PU )*

Dimana :

b = ketersediaan air ( koef aliran x luas atap x curah hujan harian

e = jika  $c > b$

Untuk menentukan kebutuhan air yang berguna untuk mensuplai kebutuhan penyiraman tanaman adalah berdasarkan wawancara dengan bagian sarana dan prasarana yang menyatakan jumlah kebutuhan air adalah sebesar 72000 liter dalam 1 hari. Penyiraman dilakukan dengan menggunakan truk air dengan kapasitas 6000 Liter/ 1 tangki dan kebutuhan penyiraman tanaman dalam 1 hari adalah 12 tangki dengan kapasitas 72000 liter. Sehingga volume total kebutuhan air untuk penyiraman tanaman seluas 6329.44 m<sup>2</sup> di setiap pinggir wilayah ITS adalah sebesar 72000 liter.

## 2.4.2 Perhitungan Jumlah Sigma Tank

Dalam perhitungan kapasitas *Sigma Tank*, perhitungan lebih spesifik adalah perhitungan jumlah *Sigma Tank* yang disusun pada area atau lokasi yang sudah ditentukan. Perhitungan jumlah *Sigma Tank* adalah sebagai berikut.

$$N \text{ Sigma Tank} = \frac{\text{Volume tampungan}}{\text{Volume satu spesifik Sigma Tank}} \quad (2.31)$$

## 2.5 Pemanen Air Hujan ( *Rain Water Harvesting* )

*Rain water harvesting* atau pemanen air hujan adalah kegiatan menampung air hujan secara lokal dan menyimpannya melalui berbagai teknologi, untuk penggunaan masa depan dalam memenuhi tuntutan konsumsi manusia. Defenisi lain terkait pemanen air hujan adalah pengumpulan, penyimpanan dan pendistribusian air hujan dari atap.

### 2.5.1 Pemanen Air Hujan dengan menggunakan Sigma Tank

Pemanen air hujan merupakan alternatif sumber air yang sudah dipraktekkan selama berabad-abad di berbagai negara yang sering mengalami kekurangan air (Chao-Hsien Liaw & Yao-Lung Tsai, 2004). Air hujan yang dipanen dapat digunakan untuk multi tujuan seperti menyiram tanaman, mencuci, mandi dan bahkan dapat digunakan untuk memasak jika kualitas air tersebut memenuhi standar kesehatan (Sharpe, William E., & Swistock, Bryan, 2008; Worm, Janette & van Hattum, Tim, 2006). Pemanen air hujan adalah teknik yang mengumpulkan dan menampung air hujan ke suatu tangki, waduk alami atau peresapan air ke permukaan akuifer di bawah permukaan.

Pemanenan air hujan yang akan dibahas di Laporan ini adalah merupakan teknologi sumur resapan air hujan dengan menggunakan tangki modular yang terbuat dari bahan polyphropolyne atau plastik yang dapat disebut dengan *Sigma Tank*.

*Sigma Tank* adalah tangki resapan modern yang diaplikasikan untuk mengalirkan air hujan ke dalam tanah maupun ke penampungan yang membutuhkan air hujan. Sistem tersebut merupakan sistem yang hemat, efisien dan murah. *Sigma Tank* dilengkapi dengan beberapa instalasi/bagian atau komponen yaitu adalah :

1. Saluran air hujan yang menerima air hujan dari atap menuju ke saluran.

2. Filter yang berguna memisahkan adanya material seperti batu, daun dan lainnya. Fungsinya adalah untuk menerima air saja.
3. Tangki Bawah Tanah yang menerima air dari bawah tanah.
4. Tangki resapan yang berperan untuk meresapkan air bersih.
5. Saluran drainase yang berperan sebagai saluran outflow untuk mengantisipasi banjir.
6. Pompa berperan untuk mensuplai air untuk kebutuhan penyiraman tanaman atau kebutuhan lain.
7. *Sprinkler* berperan untuk penyiraman tanaman.

Berikut adalah gambar *Sigma Tank* dan instalasinya berupa pipa/ saluran (mengacu pada Gambar 2.5).



*Gambar 2.5 Sigma Tank dan Bagian Instalasi*

(Sumber : Modul Teknologi Resapan Trisigma Tank )

### **2.5.2 Manfaat dan Keunggulan Panen Air Hujan dengan Sigma Tank**

*Sigma Tank* merupakan produk yang belum lama digunakan di Indonesia. Sigma Tank termasuk produk unggulan dengan banyak kelebihan khusus yang dimiliki. Kelebihan-kelebihan tersebut mampu menjadi manfaat bagi penggunaan *Sigma Tank*. Manfaat dan keunggulannya adalah sebagai berikut :

1. Sebagai Resapan Air Hujan.
2. Penyimpanan air bawah tanah.
3. Kuat terhadap tekanan tanah.
4. Saling terpaut horisontal maupun vertikal.
5. Memiliki besaran volume yang fleksibel.
6. Pemasangan yang sangat mudah.
7. Bahan yang termasuk kuat, awet dan murah.

### **2.5.3 Sistem Kerja *Sigma Tank***

Sistem kerja *Sigma Tank* adalah dengan menampung air hujan melalui saluran inlet dan outlet. Saluran inlet menerima hujan melalui air hujan yang jatuh ke atap lalu talang/saluran ,menuju ke lahan lalu menuju saluran inlet. Setelah di saluran inlet, air akan ditampung dan dikeluarkan melalui saluran outlet saat waktunya penyiraman tanaman dengan bantuan pompa. Saat terjadi hujan dalam waktu yang cukup lama dan berpotensi menyebabkan banjir, maka sigma tank didesain juga untuk memiliki saluran outlet menuju ke saluran drainase atau tampungan sementara. Hal tersebut berguna untuk menghindari banjir.

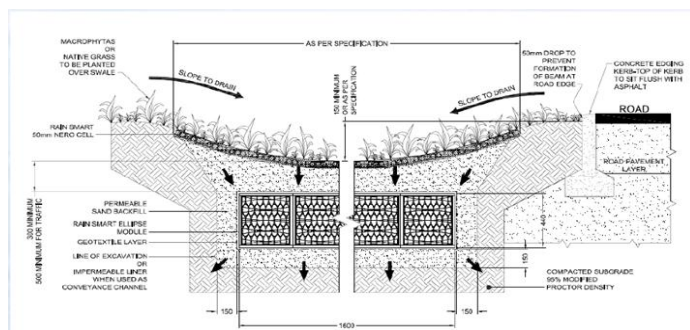
Penyusunan *Sigma Tank* yang merupakan tangki-tangki kecil yang disusun sebagai penampung adalah disusun dengan vertikal dan horisontal yang berguna untuk meningkatkan kestabilan dalam geser.

*Sigma Tank* memiliki tekanan hidrolik yang berasal dari penyempitan saluran outlet dan dorongan dari pompa sehingga menyebabkan adanya tekanan air yang dapat menaikkan air dari tampungan untuk menuju dan melalui saluran outlet.

#### 2.5.4 Desain *Sigma Tank* (tangki modular)

Untuk desain *Sigma Tank* adalah berupa modular-modular yang terbuat dari polyphropolyne dengan spesifikasi dimensi tertentu yang disusun secara vertikal dan horizontal membentuk penampungan. Air yang ditampung berasal dari air hujan yang mengalir menuju atap lalu ke talang atau saluran inlet menuju ke penampungan dan keluar menuju saluran outlet dengan menggunakan pompa. Saluran outlet mengeluarkan air untuk kebutuhan pemyiraman tanaman. Saat terjadi hujan dalam waktu yang cukup lama dan berpotensi menyebabkan banjir, maka *Sigma Tank* didesain juga untuk memiliki saluran outlet menuju ke saluran drainase atau tampungan sementara. Hal tersebut berguna untuk menghindari banjir.

Berikut adalah gambar desain *Sigma Tank* secara umum dan akan dijelaskan bagian-bagiannya secara umum (mengacu pada Gambar 2.6).



**Gambar 2.6** Desain dan Cara Kerja *Sigma Tank*

(Sumber : Modul Teknologi Resapan Trisigma Tank)

1. *Slope drain* yang merupakan kemiringan lahan sekitar yang mampu mengalirkan air menuju ke penampungan/modular tank.
2. Ketinggian 50 mm untuk mencegah adanya benturan balok atau batu sekitarnya
3. Terdapatnya pasir disamping modular sigma tank yang berguna meloloskan air dan memadatkan atau sebagai perkuatan dinding Modular *Sigma Tank*.
4. Terdapatnya garis linear yang berfungsi sebagai saluran pengangkut material pasir maupun batu kecil.
5. Terdapat geotekstil/geomembran yang berfungsi membungkus modular *Sigma Tank* setelah adanya urugan pasir dengan tebal 150 mm.
6. Terdapatnya tanah subgrade yang dipadatkan

Berikut dibawah ini adalah gambar desain umum *Sigma Tank* (mengacu pada Gambar 2.7).





*Gambar 2.7 Desain Umum Sigma Tank*  
(Sumber : Modul Teknologi Resapan Trisigma Tank)

### **2.5.5 Bahan *Sigma Tank* dan Geomembran**

Bahan penyusun *Sigma Tank* adalah terbuat dari bahan plastik atau *Polyphrolyne* yang memiliki nilai  $\gamma$  adalah sebesar 0.91-0.925, 0.925-0.940 serta 1.3, 1.34-1.39  $\text{ton/m}^3$  dan lainnya serta berat sebesar 6.54 kgs/unit . Bahan ini lebih memiliki keunggulan dalam harga, ringan dan awet. Selain bahan penyusun modular *Sigma Tank*, terdapat juga bahan pembungkus *Sigma Tank* yang terbuat dari geotextile. Geotextile berfungsi untuk membungkus dinding kiri, kanan, bawah dan atas pada *Sigma Tank*. Geomembran bersifat kadap air sehingga tepat dijadikan bahan untuk penampungan hujan.

Modular *Sigma Tank* dan geomembran dapat dilihat pada Gambar 2.8 dibawah ini.



***Gambar 2.8 Sigma Tank dan Geomembran***  
(Sumber : Modul Teknologi Resapan Trisigma Tank)

### **2.5.6 Aplikasi Sigma Tank**

*Sigma Tank* merupakan salah satu produk unggulan sebagai inovasi resapan air hujan yang mudah diaplikasikan dan memiliki prosedur tersendiri. *Sigma Tank* dapat diaplikasikan untuk :

1. Pengaturan aliran air hujan untuk menghambat terjadinya banjir.
2. Permukaan area yang sering tergenang air hujan.
3. Saluran drainase tanah rendah.
4. Lapangan olahraga dan halaman rumput.
5. Area pertamanan pribadi maupun komersil.
6. Penyimpanan air dalam tanah.
7. Peresapan air hujan kedalam tanah.

### **2.5.7 Ukuran Tangki Modular *Sigma Tank* dan Spesifikasi Produk**

Tangki modular *Sigma Tank* memiliki ukuran yang terdapat dipasaran beserta spesifikasinya adalah sebagai berikut ( mengacu pada Gambar 2.9).

Ukuran Tangki Modular Sigma Tank VT 844				Isi Tangki
Modular (Units)	Lebar (mm)	Panjang (mm)	Tinggi (mm)	Volume (Ltr)
Single (1)	390	782	410	125
Double (2)	390	782	820	250
Triple (3)	390	782	1230	375
Quad (4)	390	782	1640	500
Penta (5)	390	782	2050	625

Spesifikasi Produk	
Standard	: 390 mm (L) x 410 mm (T) x 782 mm (P)
Material	: 90% polypropylene daur ulang + 10% bahan tambahan
Warna	: Hitam
Kekuatan	: 18,7 ton/m <sup>2</sup> - 3 Stabilizer
	: 24,4 ton/m <sup>2</sup> - 4 Stabilizer
	: 27,8 ton/m <sup>2</sup> - 5 Stabilizer
Resisten	: Terhadap bahan kimia dan biologi

**Gambar 2.9** Spek Sigma Tank dan Bagian Instalasi  
(Sumber : Modul Teknologi Resapan Trisigma Tank )

Adanya spesifikasi ukuran *Sigma Tank* menjadikan pelaksanaan dan pemasangan *Sigma Tank* hanya dapat dilaksanakan dengan disusun sesuai spesifikasi yang ada.

### 2.5.8 Metode Pelaksanaan Penggunaan *Sigma Tank*

*Sigma Tank* cukup mudah dilaksanakan di lapangan dikarenakan tidak terlalu banyak menggunakan mobilitas dari adanya fasilitas angkutan proyek seperti alat berat dan lainnya. Selain itu, *Sigma Tank* lebih mudah dilaksanakan dikarenakan metode pelaksanaan yang cukup sederhana, namun butuh

ketelitian yang akurat. Berikut adalah tahap-tahap pelaksanaan penggunaan *Sigma Tank*.

1. Tahap pengecekan dilakukan pada galian dengan kondisi permukaan rata, pemadatan dan kedalam juga harus sesuai dengan yang telah ditentukan. *Sigma Tank* tidak dapat dipasang pada elevasi muka air tanah yang tinggi dikarenakan akan mengakibatkan pencapaian tampungan air hujan kurang maksimal dan dapat menyebabkan ketidakamanan terhadap uplift.
2. Pemasangan Geotekstil atau dapat menggunakan geomembran dilakukan di atas permukaan tanah galian yang sudah diurug pasir setebal 150 m.
3. Pemasangan HPDE Geomembran terhadap dinding samping kiri dan kanan pada tangki modular. Geomembran bersifat kadap air sehingga mampu untuk menampung air hujan.
4. Pemasangan modul sumur resapan dengan penyusunan secara vertikal dan horizontal dan diperkuat dengan kawat galvanis. Setelah pemasangan selesai, bagian atas sigma tank dibungkus geomembran dan dilakukan penempatan pipa inlet dan outlet di bagian atas tangki modular (*Sigma Tank*). Setelah itu, diurug dengan pasir 150 mm dan dipadatkan.
5. Pembersihan.

## 2.6 Sifat-Sifat Fluida

- Tekanan hidrolik  
Tekanan hidrolik merupakan tekanan yang terjadi pada air saat melewati celah yang cukup sempit dan akibat adanya dorongan atau kekuatan dari pompa. Tekanan hidrolik menyebabkan air yang ditampung dalam *Sigma*

*Tank* akan mampu naik dan turun serta melewati pipa outlet. Adanya peristiwa tersebut dikarenakan juga oleh adanya penyempitan penampang yaitu dari penampungan menuju pipa outlet serta adanya tekanan hidrolik melalui operasional pompa. Tekanan hidrolik terjadi akibat adanya sistem hidrolik yang merupakan bentuk perubahan atau pemindahan daya dengan menggunakan media penghantar berupa fluida cair untuk memperoleh daya yang lebih besar dari daya yang dikeluarkan. Dimana fluida penghantar dinaikkan tekananya oleh adanya pompa.

## 2.7 Perhitungan Gaya Uplift Kolam Tampung (Sigma Tank)

Dalam mendesain *Sigma Tank*, perlu diperhatikan adanya air yang berada di sisi kiri dan kanan luar *Sigma Tank* yang tidak masuk ke dalam tampungan. Hal tersebut perlu diperhatikan saat kondisi air di dalam tampungan (*Sigma Tank*) memiliki elevasi lebih rendah daripada air yang ada di sisi luar penampungan. Hal-hal tersebut akan berpotensi mengakibatkan adanya uplift. Besarnya gaya uplift (Anonim1, 1999) adalah sebagai berikut.

$$Q = Y \cdot z \cdot A \quad (2.32)$$

Dimana :

Q : Gaya Uplift (Ton).

Y : Berat Jenis air ( 1 ton/m<sup>3</sup>).

A : Luas dasar reservoir (m<sup>2</sup>).

Z :Perbedaan Tinggi muka air tanah dengan kedalaman dasar reservoir (m).

Selain itu, harus dilakukan pengecekan faktor keamanan terhadap gaya uplift yang bekerja. Besar faktor keamanan terhadap gaya uplift yaitu beban mati struktur dibagi dengan total gaya hidrostatik uplift ( Anonim2, 2004) dapat ditulis dengan persamaan :

$$SF = \frac{W}{Q} > 1.25 \quad (2.33)$$

Dimana W adalah berat jenis *polypropylene* x volume *Sigma Tank*. Nilai berat jenis *polypropylene* adalah 1300

kg/m<sup>3</sup>. Berikut adalah nilai berat jenis *polypropylene* yang dapat dilihat pada Gambar 2.10 berikut.

Styrene Butadiene Thermoplastic .93 - 1.10  
 Polyethylene High Molecular Weight .94 -.99  
 Polyethylene (High Density) .941 - .965  
 Polyethylene Cross Linkable .95 - 1.4,5  
 Polypropylene (inert Filler) 1.00 - 1.30

**Gambar 2.10** Nilai Berat Jenis *Polypropylene*

Selain *polypropylene*, berikut adalah berat jenis Sigma Tank yaitu sebesar 150 gram/m<sup>2</sup>.

## **2.8 Analisa Efisiensi Biaya Melalui *Sigma Tank***

Untuk mengetahui efisiensi biaya yang dapat dihemat oleh adanya *Sigma Tank* sebagai penampung air hujan yang mengganti suplai air dari PDAM untuk penyiraman tanaman, maka rumus yang dapat digunakan adalah sebagai berikut.

Total biaya yang dapat diefisiensikan :

Biaya efisiensi =

Total suplai dari *Sigma Tank* x Biaya suplai PDAM (2.34)

## **BAB 3**

### **METODOLOGI**

#### **3.1 Studi Literatur**

Studi literatur adalah mempelajari berbagai sumber literatur yang berkaitan dengan analisa permasalahan, buku-buku yang dipakai antara lain :

- **Hidrologi**

Untuk menganalisa ketersediaan air berdasarkan data hujan serta menentukan rasio antara ketersediaan air hujan yang menggunakan konsep penampungan dengan ketersediaan air melalui suplai air untuk penyiraman tanaman dari lokasi persediaan di ITS yang dibantu dengan suplai air dari kolam rektorat ITS. Analisa hidrologi berguna untuk mengetahui debit dan volume yang dapat ditampung oleh *Sigma Tank* serta mampu mengetahui dimensi dan jumlah kebutuhan *Sigma Tank*.

- **Hidrolika**

Merencanakan dimensi atau desain dimensi saluran (talang) saat membawa air hujan menuju penampungan, dimensi saluran outflow untuk kebutuhan penyiraman tanaman dan untuk mengatasi banjir.

#### **3.2 Survey Lapangan**

Survey lapangan meliputi :

1. Kondisi lokasi
2. Kendala dan masalah yang terjadi pada daerah studi.

#### **3.3 Pengumpulan Data**

Data-data yang diperlukan dalam penulisan Tugas Akhir ini adalah

1. Data hujan harian selama 15 Tahun.
2. Data luas atap masing-masing lokasi yang ditinjau.
3. Peta Lokasi.
4. Peta Tata Guna Lahan. (C)

5. Koefisien Kekasaran Saluran (n).
6. Data Spesifikasi *Sigma Tank*.
7. Data Peta Zona Penyiraman Tanaman di ITS.
8. Elevasi Muka Air Tanah untuk Perhitungan Uplift.
9. Data kebutuhan penyiraman tanaman/hari.
10. Data spesifikasi pompa dan saluran.
11. Data biaya pemakaian air melalui PDAM untuk penyiraman tanaman.

### 3.4 Pengolahan Data

Data yang telah didapatkan kemudian diolah dengan menggunakan metode – metode yang telah diajarkan, yaitu.

#### 3.4.1 Neraca Air

Neraca air adalah persamaan dalam hidrologi yang digunakan untuk menghitung besarnya aliran air yang masuk dan keluar dari sebuah sistem.

Persamaan umum neraca air adalah berdasarkan V.T.Chow (1964) yaitu.

$$I - O = \pm \Delta S \quad (3.1)$$

Dimana

I = Inflow (aliran masuk)

O = Outflow (aliran keluar)

$\Delta S$  = Perubahan cadangan air

#### 3.4.2 Analisa Ketersediaan Air

Analisa ketersediaan air yang artinya besarnya air yang tersedia pada *Sigma Tank* saat terjadinya hujan. Dalam analisa ketersediaan air, dipakai konsep hidrologi yang akan memperoleh nilai intensitas dari tinggi curah hujan rata-rata untuk perhitungan debit. Tinggi curah hujan rata-rata diperoleh dengan adanya pengelolaan data curah hujan dari stasiun penakar hujan. Untuk volume ketersediaan air sendiri menggunakan data luas area atap, koefisien pengaliran ( c ) dan curah hujan harian.



Adanya volume yang dapat ditampung akan memberikan hasil desain dimensi dan jumlah kebutuhan *Sigma Tank* yang dipakai. Berikut adalah yang termasuk analisa ketersediaan air yaitu.

1. Curah hujan (dapat dilihat di sub bab 2.1.1).
2. Koefisien pengaliran dan Area (dapat dilihat di sub-bab 2.1.3).

### 3.4.3 Analisa Desain Penampung Air dan Saluran

Analisa desain penampung air adalah untuk menentukan dimensi *Sigma Tank* atau penampung air dengan menggunakan analisa hidrologi namun, untuk merencanakan saluran yang menerima air hujan untuk disalurkan menuju ke penampungan, dipakai analisa hidrolika.

Dimensi penampungan air didapat dari adanya perhitungan debit yang diperoleh dari hujan yang jatuh melalui atap, saluran, lahan dan menuju ke penampungan (*Sigma Tank*). Hal yang perlu diperhitungkan adalah debit yang masuk, kapasitas penampungan, curah hujan, luas area, koefisien kekasaran serta spesifikasi dimensi tangki-tangki pada *Sigma Tank*. Dengan adanya debit dan volume tampungan yang sudah dihitung, maka dimensi kolam tampung dapat ditentukan dan disesuaikan dengan jumlah *Sigma Tank* serta spesifikasi dimensi yang dimiliki oleh *Sigma Tank* sesuai spek produk tersebut. Output dari desain penampung air adalah sebagai berikut.

1. Jumlah *Sigma Tank* yang digunakan mencakup panjang, lebar dan kedalaman.(dapat dilihat di sub-bab 2.5.2).
2. Total panjang, lebar dan kedalaman penampungan.(dapat dilihat di sub-bab 2.5.1).

Untuk saluran menggunakan analisa hidrolika yang dapat dilihat di sub bab 2.2 Untuk perhitungan Saluran outflow mengacu pada sub-bab 2.1.3 hingga sub-sub-bab 2.1.7.3 serta analisa hidrolika.

### **3.4.4 Analisa Operasional Pompa**

Analisa operasional pompa adalah lebih menganalisa waktu pompa dinyalakan dan waktu pompa dimatikan untuk mengatuh kebutuhan air dalam penyiraman tanaman. Outputnya adalah jumlah pompa yang dipakai dengan kapasitas yang sesuai serta waktu operasional pompa.(dapat dilihat pada sub-bab 2.3).

### **3.4.5 Analisa Perhitungan Routing dengan *Reservoir Routing* dan Neraca Air**

Analisa ini menjelaskan tentang perhitungan routing yang terjadi pada data curah hujan harian. Perhitungan ini bertujuan untuk dapat mengetahui jumlah debit inflow yang masuk, besar *storage* dan debit outflow yang harus dikeluarkan. Output selain hal tersebut adalah dapat menentukan juga besar kapasitas pompa untuk mengeluarkan air yang berguna untuk penyiraman tanaman. (dapat dilihat pada sub-bab 2.5 dan sub-sub bab 2.5.1).

### **3.4.5 Analisa Gaya Uplift**

Analisa gaya uplift adalah gaya angkat akibat air yang akan berguna untuk mengetahui apakah desain sigma tank mampu untuk mengatasi adanya gaya uplift yang terjadi. Outputnya adalah  $SF > 1.25$ . (dapat dilihat pada sub-bab 2.8).

### **3.4.6 Analisa Biaya**

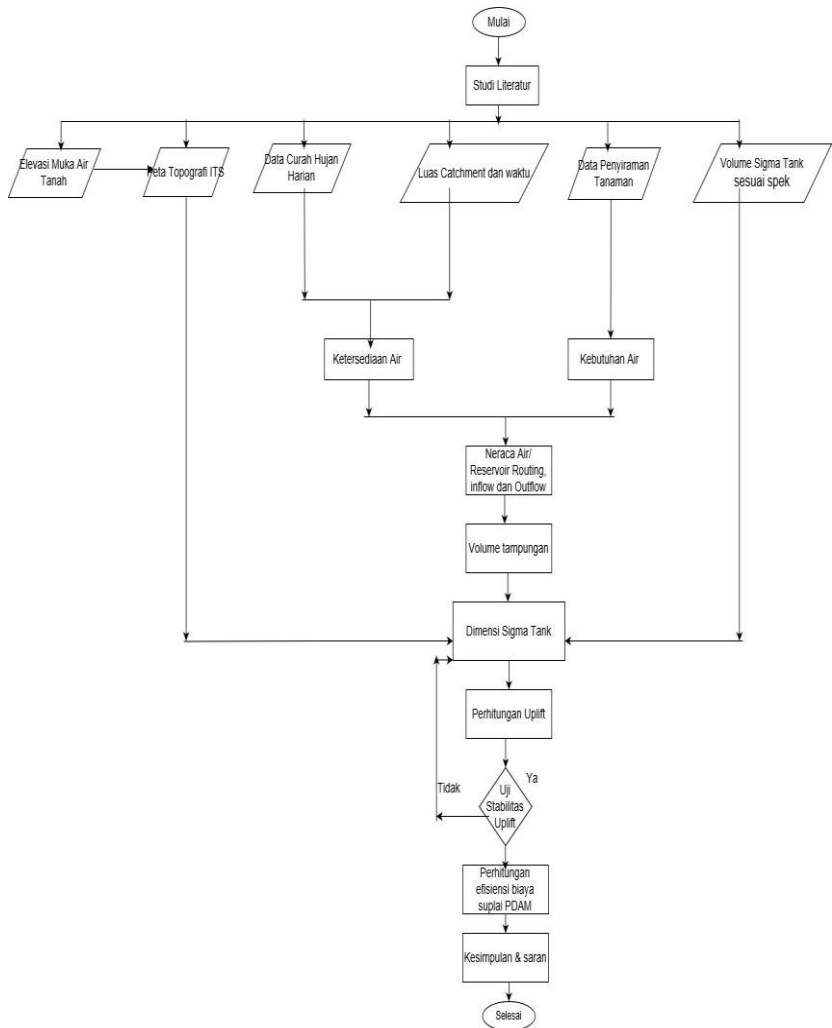
Analisa biaya yang dipakai adalah lebih spesifik pada jumlah biaya yang dapat dihemat dengan adanya suplai air dari Sigma Tank jika dibandingkan dengan suplai air dari PDAM.(dapat dilihat berdasarkan bab 2 pada sub- bab 2.9).

### **3.5 Kesimpulan dan Saran**

Mendapatkan kesimpulan akhir perencanaan yaitu Dimensi dan jumlah *Sigma Tank* sebagai penampung air hujan.

### **3.6 Langkah Pengerjaan**

Langkah pengerjaan Tugas Akhir ini dapat dilihat pada flowchart berikut (mengacu pada Gambar 3.1)



**Gambar 3.1** Flowchart

## BAB 4

### ANALISA DAN PERHITUNGAN

#### 4.1 Analisa Data Hujan

Data curah hujan yang dipakai adalah data hujan Stasiun Keputih yang merupakan data curah hujan harian (mm). Data hujan yang dipakai adalah data hujan harian yang berasal dari tahun 2000-2014. Berikut adalah contoh data hujan tahun 2000 pada Stasiun Keputih yang dapat dilihat pada tabel 4.1. Untuk tahun berikutnya dapat dilihat pada lampiran.

*Tabel 4.1 Data Stasiun Hujan Keputih*

TANGGAL	B U L A N (mm)											
	JAN	PEB	MAR	APR	MEI	JUN	JUL	AGS	SEP	OKT	NOP	DES
1	43	0	0	0	56	0	0	0	0	0	12	0
2	62	0	0	0	0	0	0	0	0	0	7	0
3	86	18	19	0	0	0	0	0	0	0	0	0
4	0	0	14	0	0	0	0	0	0	0	0	0
5	0	0	0	15	0	20	0	0	0	0	0	0
6	0	0	10	0	0	0	0	0	0	0	30	0
7	78	0	0	0	0	0	0	0	0	0	0	0
8	0	26	0	20	28	0	0	0	0	0	2	0
9	0	47	0	0	0	0	0	0	0	0	5	0
10	26	25	0	0	0	0	0	0	0	0	13	0
11	21	0	0	0	0	0	0	0	0	0	0	0
12	28	0	0	0	0	0	0	0	0	0	0	21
13	10	0	37	0	0	5	0	0	0	0	20	12
14	27	58	6	0	0	0	0	0	0	0	0	19
15	0	0	0	0	5	0	0	0	0	0	0	0
16	26	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	35
18	0	0	0	0	0	0	0	0	0	3	4	80
19	0	56	11	0	0	0	0	0	0	0	0	75
20	0	0	8	34	0	0	0	0	0	6	0	12

Lanjutan tabel stasiun hujan

21	0	3	0	0	0	0	0	0	0	0	10	10
22	0	0	88	25	46	0	0	0	0	0	0	9
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	20	0	0	0	0	0	0	0	0	2	0
25	0	54	0	0	80	0	0	0	0	0	0	0
26	48	38	0	30	0	0	0	0	0	14	0	0
27	0	0	7	0	0	0	0	0	0	0	20	32
28	9	0	0	0	0	0	0	0	0	0	0	0
29	13	0	0	0	0	0	0	0	0	20	0	0
30	0		30	0	0	0	0	0	0	29	0	0
31	30		0		0		0	0		6		0

Dari data hujan tersebut diolah untuk mendapatkan volume inflow atau volume yang masuk ke dalam tampungan. Data hujan akan diolah dari harian hingga didapat volume inflow terbesar di setiap tahun. Adanya volume inflow dengan perhitungan lebih lanjut akan dapat menentukan volume Sigma Tank atau kapasitas dari Sigma Tank tersebut. Data hujan harian dibutuhkan karena kebutuhan air yang dipakai untuk penyiraman tanaman adalah dalam bentuk harian.

#### 4.1.1 Perhitungan Pemilihan Stasiun Hujan

Lokasi yang ditinjau adalah Institut Teknologi Sepuluh Nopember. Pemilihan Stasiun Hujan adalah dengan menggunakan Stasiun Hujan Keputih dikarenakan lokasi penelitian adalah lokasi yang lebih dekat dengan Stasiun Hujan Keputih. Selain dikarenakan dekat dengan Stasiun Keputih, menurut metode Wilson E.M dijelaskan penggunaan jumlah stasiun hujan berdasarkan luas DAS. Berikut adalah tabel jumlah stasiun hujan berdasarkan luas DAS yang dapat dilihat pada tabel 4.2.

*Tabel 4.2 Jumlah Stasiun Hujan dan DAS*

Luas DAS		Jumlah Stasiun Hujan
Mil <sup>2</sup>	Km <sup>2</sup>	
<10	<26	1
10	26	2
100	260	6
500	1300	12
10000	2600	15
20000	5200	20
30000	7800	24

Berdasarkan tabel diatas, nilai DAS untuk stasiun hujan Keputih, Wonokromo dan Gubeng adalah 4.46, 3.53 dan 4.01 km<sup>2</sup> yang memiliki DAS <26 km<sup>2</sup>. Hal tersebut menjelaskan bahwa pemakaian stasiun hujan yaitu cukup satu dan dipakai adalah Stasiun Hujan Keputih . Pemakaian Stasiun Keputih dikarenakan lebih dekat dengan lokasi ITS.

Selain dengan cara tersebut, dapat digunakan juga Metode Thiessen. Langkah-langkah yang dilakukan dengan Metode Thiessen adalah sebagai berikut :

1. Pemilihan 3 stasiun terdekat pada lokasi Gubeng, Wonokromo dan Keputih

Stasiun Gubeng, Wonokromo dan Keputih memiliki jarak yang lebih dekat ke lokasi dibandingkan lainnya. Hal tersebut dapat dilihat dari hasil google maps seperti di bawah ini.

Nilai luas area masing-masing adalah untuk Stasiun Hujan Gubeng adalah 4.01 km<sup>2</sup> , luas area untuk Stasiun Hujan Keputih adalah 4.46 km<sup>2</sup> dan luas area Stasiun Hujan Wonokromo adalah sebesar 3.53 km<sup>2</sup>.

Presentasi untuk masing-masing area dapat dihitung dengan rumus :

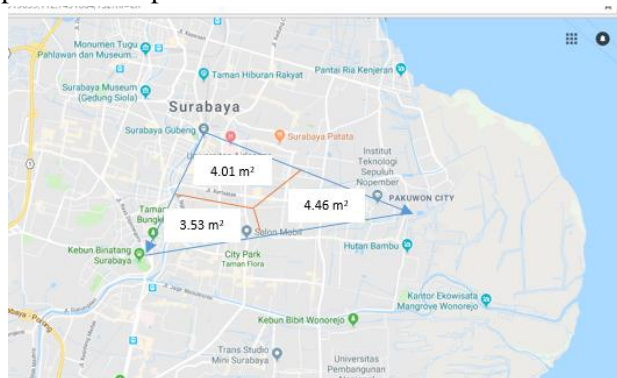
$$\begin{aligned} & \text{Presentasi Stasiun Hujan Gubeng} : \\ & \frac{\text{A Stasiun Hujan Gubeng}}{\text{A stasiun Hujan Gubeng} + \text{Wonokromo} + \text{Keputih}} \times 100\% \\ & = \frac{4.01}{4.01 + 4.46 + 3.53} \times 100\% = 33.4\% \end{aligned}$$

Untuk hasil lain dapat dilihat pada tabel 4.3 dibawah ini.

**Tabel 4.3 Persentasi Luas Stasiun**

Gubeng	Wonokromo	Keputih	Atotal	Gubeng(%)	Wonokromo	Keputih
4.01	3.53	4.46	12	33.41	29.4166	37.16

Untuk gambar pengaruh dengan cara Metode Thiessen dapat dilihat seperti Gambar 4.1 di bawah ini.



**Gambar 4.1 Gambar Area dengan Thiessen**

- Setelah dihitung presentasinya, maka ditentukan yang memiliki pengaruh besar adalah berasal dari Stasiun Keputih.



## 4.2 Layout Lokasi

Lokasi yang ditinjau adalah lahan depan perpustakaan ITS, FTSLK ITS, lahan sebelah robotika ITS dan lahan sebelah FTK ITS.

Lokasi-lokasi tersebut direncanakan lengkap dengan instalasi pipa yang menerima inflow air dari atap atau catchment area masing-masing. Selain itu, perencanaan yang direncanakan juga termasuk penempatan *Sigma Tank* beserta saluran outflow yang mengalir ke drainase dan saluran outflow sebagai saluran yang berguna memberikan air untuk penyiraman tanaman ITS. Adanya saluran outflow yang mengalir menuju ke saluran drainase memiliki manfaat untuk mencegah adanya air yang keluar saat melewati elevasi tinggi air yang direncanakan.

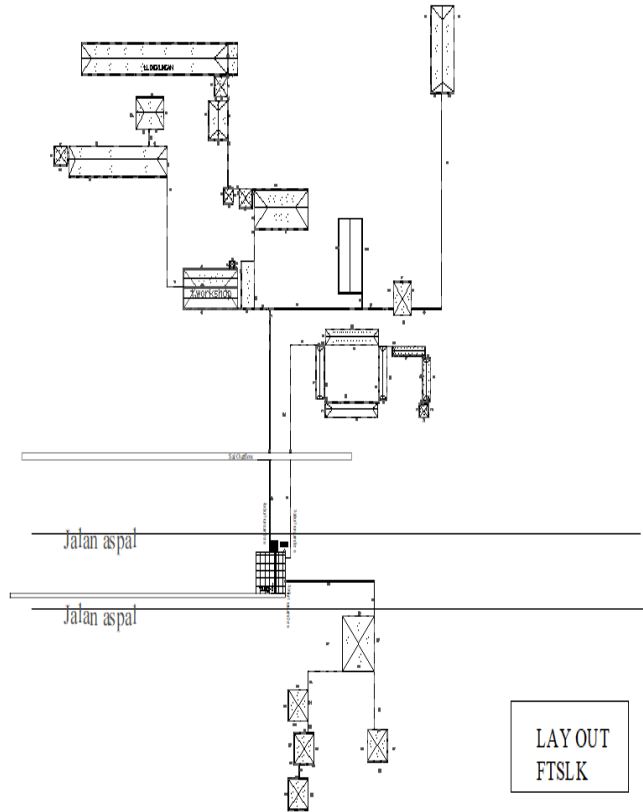
Berikut adalah gambar 4.2 yang merupakan gambar layout lokasi dan saluran inflownya secara umum. Untuk gambar lebih jelasnya dapat dilihat pada lampiran gambar-gambar.



*Gambar 4.2 Layout Lokasi*

### 1. Layout FTSLK

Berikut adalah Gambar 4.3 yaitu layout saluran inflow, outflow dan Sigma Tank pada lokasi FTSLK (Taman Alumni ITS).



**Gambar 4.3** Layout FTSLK ITS

Berikut adalah tabel 4.4, 4.5 dan 4.6 yaitu rekap nilai panjang saluran inflow pada lokasi taman alumni (depan FTSLK ITS).

*Tabel 4.4 Panjang Saluran T.Alumni*

Nama Saluran	Panjang (m)	Nama Saluran	Panjang (m)
1	65	23	8
2	65	24	3
3	11	25	10
4	2	26	8
5	8	27	10
6	15	28	41
7	8	29	12
8	15	30	2
9	2	31	41
10	5	32	15
11	7	32a	12
12	5	33	12
13	7	34	7.5
14	3	35	7.5
15	12	36	9
16	14	37	10
17	14	38	9
18	12	39	10
19	6	40	5
20	8	41	3
21	8	42	29
22	8	43	33
23	8	44	4
		45	8
		46	40
		47	25

*Tabel 4.5 Panjang Saluran T.Alumni*

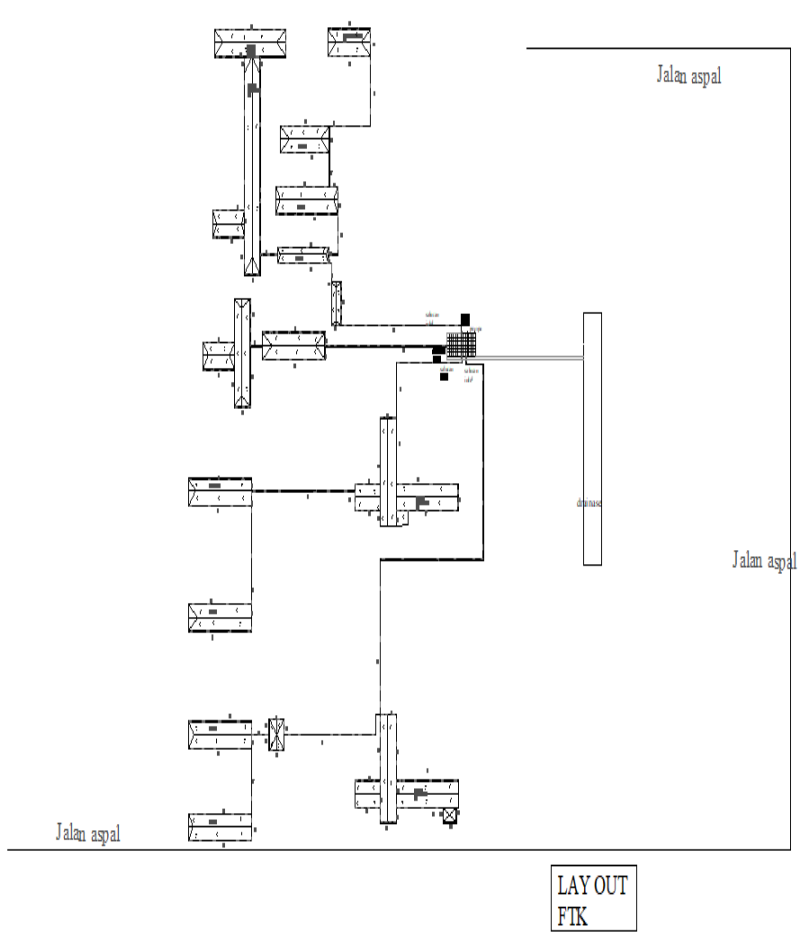
Nama Saluran	Panjang (m)	Nama Saluran	Panjang (m)
48	23	70	54
49	20	75	72
50	4	77	16
51	3	78	16
52	4	79	16
53	3	80	4
54	3	81	12
55	22	82	40
56	35	83	8
57	35	84	15
58	3	85	40
59	21	86	5
60	21	87	30
61	2	88	40
62	9	89	50
63	60	90	14
64	29	91	50
65	15	92	22
66	15	93	22
67	15	94	17
68	15	95	2
69	27	96	40
69a	33	97	40
69b	33	98	6
69c	5	99	46
		100	46

*Tabel 4.6 Panjang Saluran T.Alumni*

Nama Saluran	Panjang (m)
101	15
102	7
103	12
104	28
106	12
107	12
108	12
109	12
110	23
111	12
112	12
113	12
114	12
115	1
116	8
117	10
118	2
119	10
120	10
121	1
122	9
123	9
124	9
125	9
126	12
127	24
128	24
129	24
130	24
131	45
132	100

## 2. Layout FTK

Berikut adalah Gambar 4.4 yaitu layout saluran inflow, outflow dan Sigma Tank pada lokasi FTK ITS.



**Gambar 4.4** Layout FTK

Berikut adalah tabel 4.7 dan 4.8 yaitu rekap nilai panjang saluran inflow pada lokasi FTK ITS.

***Tabel 4.7 Panjang Saluran FTK***

Nama Saluran	Panjang (m)	Nama Saluran	Panjang (m)
1	56	23	12
2	56	24	28
3	14	25	53
4	50	26	12
5	52	27	53
6	52	28	12
7	8	29	8.5
8	8	30	8.5
9	90	31	12
10	14	32	12
11	14	33	17
11a	6	34	98
12	8	35	12.5
13	52	36	8
14	12	36a	12
15	8	37	44
16	52	37B	9
17	12	37a	9
18	52	37C	9
19	52	38	53
20	138	39	35
21	53	40	12.5
22	53	41	15
		42	12
		43	15

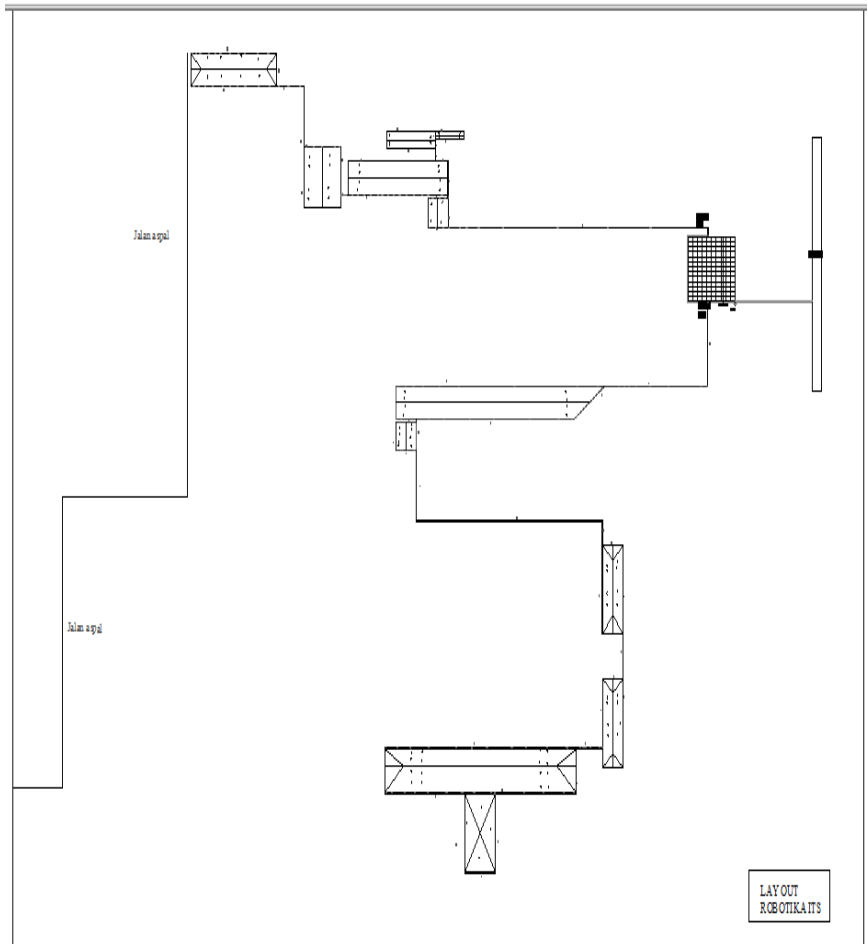
*Tabel 4.8 Panjang Saluran FTK*

Nama Saluran	Panjang (m)	Nama Saluran	Panjang (m)
44	35	69	42
45	280	70	30
46	12	71	12
47	12	72	30
48	21	73	28
49	14	74	15
50	36	75	38
51	29	76	13
52	10	77	38
53	52	78	12
54	52	79	41
55	6.5	80	9.5
56	6.5	81	14
57	115	82	41
58	60	83	24
59	14	84	4
60	55	85	3
61	87	86	8
62	15	87	23
63	16	88	9
64	15	89	23
65	20	90	90
66	15		
67	13		
68	42		



### 3. Layout Robotika ITS

Berikut adalah Gambar 4.5 yaitu layout saluran inflow, outflow dan Sigma Tank pada lokasi Robotika ITS.



**Gambar 4.5** Layout Robotika ITS

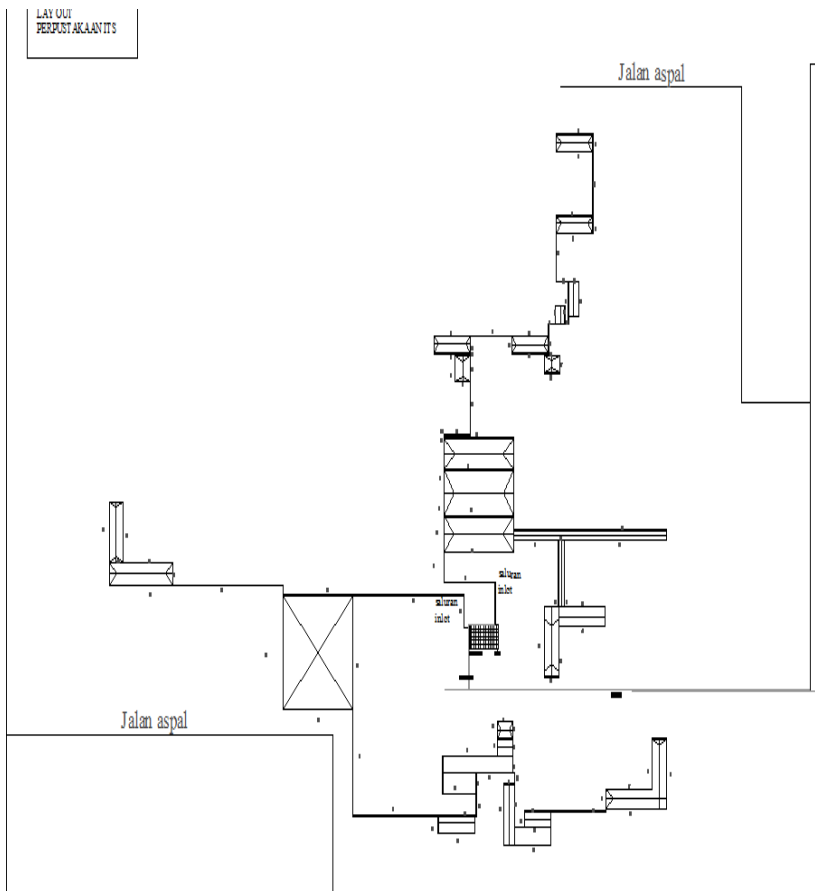
Berikut adalah tabel 4.9 yaitu rekap nilai panjang saluran inflow pada lokasi Robotika ITS.

*Tabel 4.9 Panjang Saluran Robotika ITS*

Nama Saluran	Panjang (m)	Nama Saluran	Panjang (m)
1	62	24	18
2	62	25	193
3	29	26	28
4	10	27	19
5	12	28	28
6	50	29	23
7	47	30	26
8	50	31	20
9	14	32	15
10	33	33	18
11	33	34	18
12	28	35	13
13	14	36	13
14	3.5	37	31
15	14	38	31
16	3.5	39	13
17	28	40	22
18	5	41	57
19	15	42	28
20	20	43	22
21	6	44	17
22	18	45	33
23	20	46	6
		47	52
		48	32
		49	75
		50	109
		51	69

#### 4. Layout Perpustakaan ITS

Berikut adalah Gambar 4.6 yaitu layout saluran inflow, outflow dan Sigma Tank pada lokasi Perpustakaan ITS.



*Gambar 4.6 Layout Perpustakaan ITS*

Berikut adalah tabel 4.10 dan 4.11 yaitu rekap nilai panjang saluran inflow pada lokasi perpustakaan ITS.

*Tabel 4.10 Panjang Saluran Perpustakaan ITS*

Nama Saluran	Panjang (m)	Nama Saluran	Panjang (m)
1	46	23	29
2	46	24	29
3	13	25	15
4	39	26	29
5	46	27	6
6	13	28	21
7	46	29	14
7A	39	30	21
8	4	31	36
9	14	32	63
10	30	32a	2
11	30	33	48
12	5	34	4
13	16	35	48
14	16	36	4
15	13	37	4
16	16	38	48
17	12	39	4
18	16	40	48
19	17	41	20
20	30	42	45
21	30	43	12
22	13	44	24
		45	35
		46	36

*Tabel 4.11 Panjang Saluran Perpustakaan ITS*

Nama Saluran	Panjang (m)	Nama Saluran	Panjang (m)
47	49	70	24
48	44	71	7
49	44	72	7
50	44	73	62
51	75	74	23
52	27	75	36
52a	4	76	9
53	27	77	10
54	14	78	36
55	36	79	10
56	36	80	36
57	15	81	37
58	41	82	81
59	30	83	33
60	8	84	31
61	35	85	33
62	35	86	31
62a	9	87	22
63	30	88	22
64	30	89	31
65	9	90	31
66	9	91	11
67	8	92	10
68	7	93	134
69	9	94	80

### 4.3 Analisa Routing Ketersediaan dan Kebutuhan Air

Metode yang digunakan adalah perhitungan inflow, outflow dan storage. Perhitungan dimulai dengan menginput data hujan dari tahun 2000-2014 melalui Stasiun hujan Keputih. Data hujan diurutkan dan dilakukan perhitungan untuk volume hujan yang masuk setiap harinya. Berikut akan lebih dijelaskan beberapa komponen dari analisa routing beserta penjelasan dan rumusnya.

#### 4.3.1 Analisa Ketersediaan Air

Ketersediaan air diperoleh dari hujan yang jatuh melalui 4 lokasi yaitu pada atap-atap/ catchment area di FTSLK, FTK, perpustakaan dan robotika ITS yang dibantu dengan dari beberapa bangunan disekitarnya. Untuk menghitung besarnya volume ketersediaan air adalah dengan rumus sebagai berikut.

$$V = R \times A \times K \quad (4.1)$$

Dimana:

V= Volume ketersediaan air yang masuk pada Sigma Tank

A= Luas catchment Area

K= Koefisien pengaliran (0.95)

Contoh perhitungan untuk tahun 2000 pada bulan januari dan tanggal 1 di lokasi FTSLK ITS. Sebelumnya diasumsikan kondisi tampungan sudah penuh pada tahun 1999 bulan desember tanggal 31 dengan asumsi penuh yaitu volume tampungan sebesar 9000 m<sup>3</sup>. Setelah itu akan dilakukan perhitungan. Berikut perhitungan yang dilakukan.

Nilai curah hujan (R) pada tanggal 1 januari 2000 : 43 mm  
= 0.043 m

Nilai koefisien sebesar 0.95 (dapat dilihat ketentuannya pada bab 2. Nilai Catchment area adalah jumlah total catchment area sebesar 11106.95 m<sup>2</sup>

Maka Volume inflow yang masuk dapat dihitung dengan cara.

$R \times A \times K$

$$= 0.043 \times 11106.95 \times 0.95 = 453.7189 \text{ m}^3$$

Berikut adalah tabel 4.12 dan 4.13 yaitu hasil perhitungan volume inflow tahun 2000 untuk bulan Januari. Untuk bulan dan tahun selanjutnya pada lokasi FTSLK, FTK, perpustakaan dan robotika ITS dapat dilihat pada lampiran.

***Tabel 4.12 Ketersediaan Air FTSLK ITS (Taman Alumni ITS)***

<b>TANGGAL</b>	<b>R (mm)</b>	
	<b>Buan Januari</b>	<b>Vol. l(m3)</b>
1	43	453.72
2	62	654.20
3	86	907.44
4	0	0.00
5	0	0.00
6	0	0.00
7	78	823.02
8	0	0.00
9	0	0.00
10	26	274.34
11	21	221.58
12	28	295.44
13	10	105.52
14	27	284.89

Lanjutan tabel FTSLK ITS(Taman Alumni)

*Tabel 4.13 Ketersediaan Air FTSLK ITS (Taman Alumni)*

15	0	0.00
16	26	274.34
17	0	0.00
18	0	0.00
19	0	0.00
20	0	0.00
21	0	0.00
22	0	0.00
23	0	0.00
24	0	0.00
25	0	0.00
26	48	506.48
27	0	0.00
28	9	94.96
29	13	137.17
30	0	0.00

Dengan cara yang sama dengan perhitungan ketersediaan air di FTSLK ITS, berikut adalah rekap perhitungan ketersediaan



air/ inflow pada bulan januari 2000 untuk lokasi FTK, perpustakaan dan robotika ITS. Dapat dilihat pada Tabel 4.14, 4.15 dan 4.16.

***Tabel 4.14 Ketersediaan Air FTK ITS***

TANGGAL	R (mm)	
	Bulan JAN	Vol. l(m3)
1	43	598.93
2	62	863.58
3	86	1197.87
4	0	0
5	0	0
6	0	0
7	78	1086.4
8	0	0
9	0	0
10	26	362.14
11	21	292.50
12	28	390.00
13	10	139.28
14	27	376.07
15	0	0
16	26	362.14
17	0	0
18	0	0
19	0	0
20	0	0

Lanjutan tabel FTK ITS

21	0	0
----	---	---

22	0	0
23	0	0
24	0	0
25	0	0
26	48	668.58
27	0	0
28	9	125.35
29	13	181.07
30	0	0
31	30	417.86

*Tabel 4.15 Ketersediaan Air Perpustakaan ITS*

TANGGAL	R (mm)	
	Bulan JAN	Vol. l(m3)
1	43	573.23
2	62	826.52
3	86	1146.47
4	0	0
5	0	0
6	0	0
7	78	1039.82
8	0	0
9	0	0
10	26	346.60
11	21	279.95
12	28	373.26
13	10	133.31

Lanjutan tabel perpustakaan ITS

14	27	359.93
15	0	0
16	26	346.60
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	48	639.89
27	0	0
28	9	119.97
29	13	173.30
30	0	0
31	30	399.93

***Tabel 4.16 Ketersediaan Air Robotika ITS***

<b>TANGGAL</b>	<b>R (mm)</b>	
	<b>Bulan JAN</b>	<b>Vol. l(m3)</b>
1	43	504.47
2	62	727.38
3	86	1008.95
4	0	0
5	0	0

Lanjutan tabel robotika ITS

6	0	0
7	78	915.09
8	0	0
9	0	0
10	26	305.03
11	21	246.37
12	28	328.49
13	10	117.31
14	27	316.76
15	0	0
16	26	305.03
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	48	563.13
27	0	0
28	9	105.58
29	13	152.51
30	0	0
31	30	351.95

Dengan cara yang sama, rekap perhitungan untuk lokasi perpustakaan ITS, FTK, FTSLK dan robotika ITS dapat dilihat pada lampiran.

#### 4.3.1.1 Lokasi Catchment untuk Ketersediaan Air

Lokasi yang ditinjau untuk pemasangan Sigma Tank adalah berada di FTSLK ITS, FTK, Perpustakaan dan Robotika. Berikut adalah gambar dan tabel beberapa catchment area yang digunakan. Dapat dilihat pada Gambar 4.7, 4.8 , 4.9 dan 4.10 dan Tabel 4.17, 4.18, 4.19 dan 4.20.

##### 1. FTSLK (Taman Alumni ITS)



*Gambar 4.7 Lokasi Catchment FTSLK ITS*

Berikut adalah rekap tabel luas Catchment atap untuk lokasi FTSLK ITS (Taman alumni ITS)

*Tabel 4.17 Luas Atap FTSLK ITS (Taman Alumni)*

Atap	Lokasi	Luas Atap (Catchment) (m <sup>2</sup> )
1	Teknik Lingkungan ITS	874.11
2		132.1
3		91.62
4		218.44
5		90.08
6		365.8
7		235.25
8	Teknik sipil ITS	523.54
9		85.27
10		67.67
11		534.09
12		316.37
13		458.43
14		504.69
15		848.48
16		866.42
17		377.49
18		823.83
19		483.43
20		241.75
21	Arsitektur ITS	722.95
22		504.51
23	Masjid Manarul	637.7
24		178.98

Lanjutan tabel Luas Catchment /Atap pada lokasi FTSLK/ Taman Alumni ITS

Atap	Lokasi	Luas Atap (Catchment) (m <sup>2</sup> )
25	Masjid Manarul	115.27
26		173.34
27		192.77
28	PWK ITS	442.57

2. FTK ITS



Gambar 4.8 Lokasi Catchment FTK ITS

Berikut adalah rekap tabel luas Catchment atap untuk lokasi FTK ITS.

Tabel 4.18 Luas Atap FTK ITS

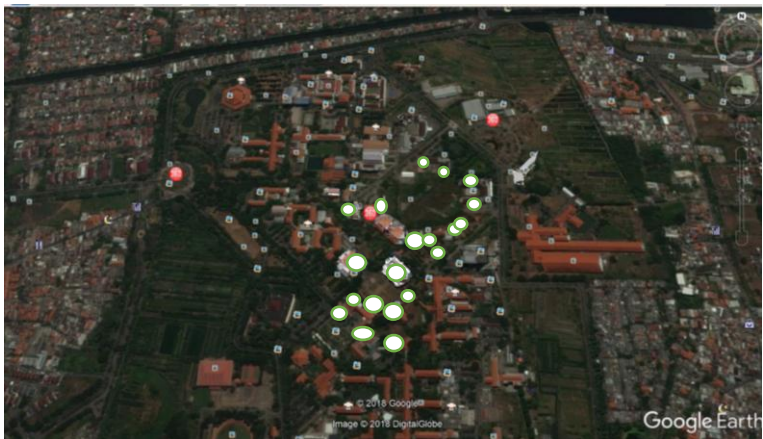
Atap	Lokasi	Luas Atap (Catchment) m <sup>2</sup>
1	Teknologi Industri	821.97
2		850.15
3		242.91
4		767.68
5		1246.24
6		711.59
7	FTK ITS	225.94
8		698.72
9		647.34



Lanjutan tabel Luas Catchment /Atap pada lokas FTK ITS

Atap	Lokasi	Luas Atap/ Catchment (m <sup>2</sup> )
10	Teknologi Industri	221.92
11		771.24
12		656.15
13	Teknik Material dan Metalurgi ITS	1752.58
14		737.80
15	FTK ITS	890.6
16	Ruang Sidang FTK ITS	999.25
17	Teknik Kelautan ITS	2259.26
18	Perkapalan ITS	480.14
19	FTK ITS	336.60

3. PERPUSTAKAAN ITS



*Gambar 4.9 Lokasi Catchment Perpustakaan ITS*

Berikut adalah rekap tabel luas Catchment atap untuk lokasi Perpustakaan ITS.

*Tabel 4.19 Luas Atap Perpustakaan ITS*

Atap	Lokasi	Luas Atap/ Catchment (m <sup>2</sup> )
1	Rektorat ITS	1357.27
2	Perpustakaan ITS	2263.9
3		386.46
4		796.48
5		206.75
6		452.7
7	BAAK ITS	950.95
8	Side of Naval Stadium ITS	1100.01
9	Perpustakaan ITS	475.97

Lanjutan tabel 4.19

Atap	Lokasi	Luas Atap/ Catchment (m <sup>2</sup> )
10	BPS ITS	1132.90
11	PPM New Center	398.42
12	Teknik Informatika dan Despro	374.08
13		246.65
14		458.28
15		224.54
16	Teknik Geomatika ITS	589.71
17		421.38
18	Teknik Informatika ITS	640.06
19		451.59
20		629.12
21	Perpustakaan ITS	475.475

4. ROBOTIKA ITS



*Gambar 4.10 Lokasi Catchment Robotika ITS*

Berikut adalah rekap tabel luas Catchment atap untuk lokasi Robotika ITS.

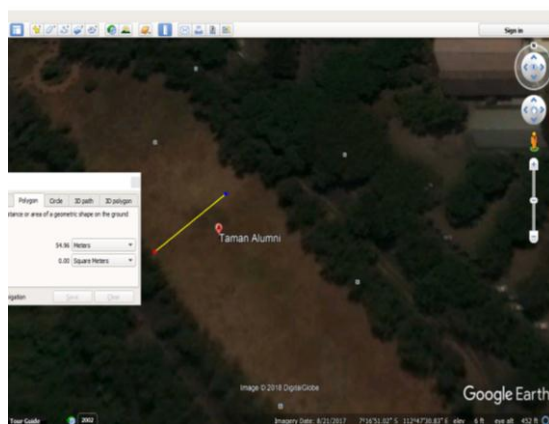
*Tabel 4.20 Luas Catchment Robotika ITS*

Atap	Lokasi	Luas Atap/ Catchment (m <sup>2</sup> )
1	Pusat Robotika ITS	431.47
2		3512.12
3		2016.31
4	Laboratorium Rekaya Forensik ITS	979.05
5	Gedung Robotika ITS	283.51
6		75.58
7		599.45
8		1535.73
9	Area HI-BPPT	419.63
10	Area HI-BPPT	252.58
11		1569.7
12		674.27

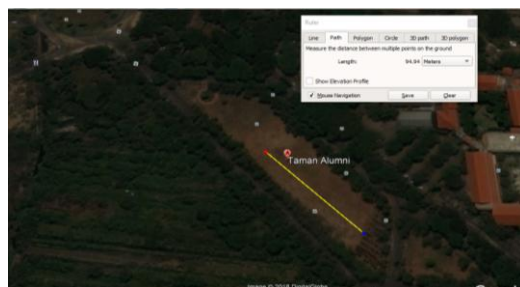
## Lahan / lokasi pemasangan Sigma Tank

### 1. FTSLK ITS

Lahan atau lokasi pemasangan Sigma Tank untuk FTSLK ITS adalah lahan taman alumni ITS yang memiliki panjang 94.94 meter dan lebar 54.96meter. Berikut adalah gambar area atau lahan lokasi FTSLK ITS. Dapat dilihat pada Gambar 4.11 dan 4.12.



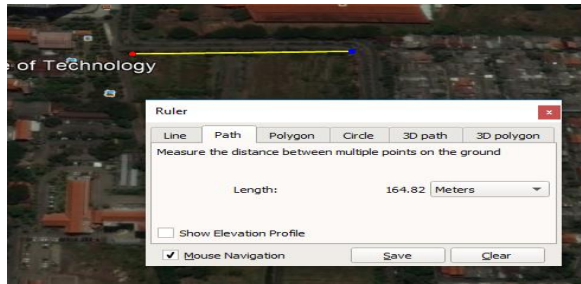
**Gambar 4.11** Lebar Lokasi Pemasangan Sigma Tank di Taman Alumni ITS



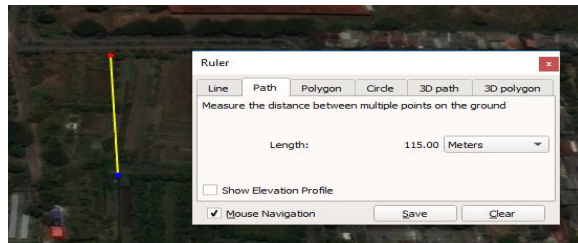
**Gambar 4.12** Panjang Lokasi Pemasangan Sigma Tank di Taman Alumni ITS

## 2. FTK ITS

Lahan atau lokasi pemasangan Sigma Tank untuk FTK ITS adalah lahan sebelah FTK ITS yang memiliki panjang 164.82 meter dan lebar 115 meter. Berikut adalah gambar area atau lahan lokasi FTK ITS. Dapat dilihat pada Gambar 4.13 dan 4.14.



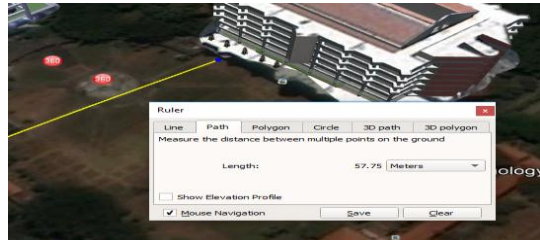
*Gambar 4.13 Panjang Lokasi Pemasangan Sigma Tank di FTK ITS*



*Gambar 4.14 Lebar Lokasi Pemasangan Sigma Tank di FTK ITS*

## 3. Perpustakaan ITS

Lahan atau lokasi pemasangan Sigma Tank untuk perpustakaan ITS adalah lahan depan perpustakaan ITS yang memiliki panjang 96.41 meter dan lebar 57.75 meter. Berikut adalah gambar area atau lahan lokasi perpustakaan ITS. Dapat dilihat pada Gambar 4.15 dan 4.16.



*Gambar 4.15 Lebar Lokasi Pemasangan Sigma Tank di Perpustakaan ITS*



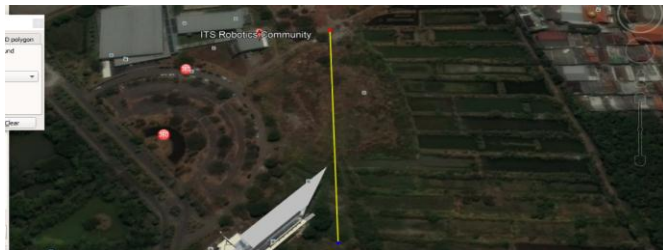
*Gambar 4.16 Panjang Lokasi Pemasangan Sigma Tank di Perpustakaan ITS*

#### **4. Robotika ITS**

Lahan atau lokasi pemasangan Sigma Tank untuk robotika ITS adalah lahan depan robotika ITS yang memiliki panjang 194 meter dan lebar 148 meter. Berikut adalah gambar area atau lahan lokasi robotika ITS. Dapat dilihat pada Gambar 4.20 dan 4.21.



*Gambar 4.17 Panjang Lokasi Pemasangan Sigma Tank di Robotika*

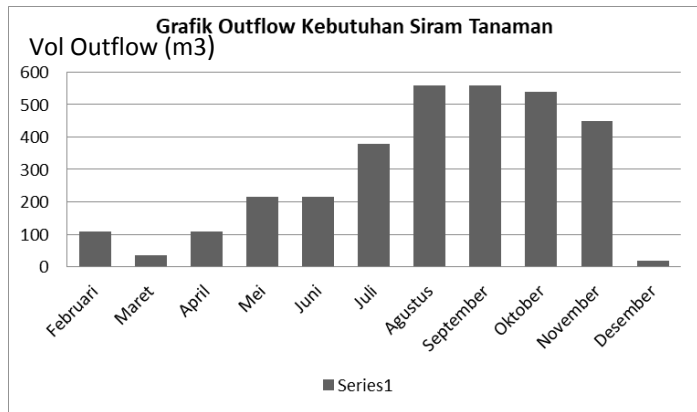


*Gambar 4.18 Lebar Lokasi Pemasangan Sigma Tank di Robotika*

#### **4.3.2 Analisa Kebutuhan Air**

Kebutuhan air yang digunakan adalah kebutuhan air untuk penyiraman tanaman di pinggirkan sekeliling kampus ITS. Nilai kebutuhan air berasal dari survey wawancara dengan bagian sarana dan prasarana. Nilai kebutuhan air adalah sebesar  $72 \text{ m}^3$  dengan masing-masing lokasi adalah  $18 \text{ m}^3$ . Penyiraman dilakukan setiap hari dan akan berhenti selama 2-3 hari saat turun hujan agar tanaman dalam kondisi kering untuk disiram di kemudian hari. Jenis tanaman ini pada dasarnya memiliki penyerapan yang hampir sama dengan rumput. Berikut adalah grafik jumlah kebutuhan penyiraman tanaman pada tahun 2000 di lokasi FTSLK ITS (Taman Alumni ITS) pada Gambar 4.19. Untuk grafik dengan tahun dan lokasi lainnya, dapat dilihat pada lampiran.





*Gambar 4.19 Grafik Outflow Siram Tanaman dengan Waktu*

#### 4.3.3 Analisa Storage/Tampungan Air

Storage atau dapat dikatakan tampungan adalah jumlah air yang berasal dari sisa di tampungan dijumlahkan dengan adanya volume inflow yang masuk lalu dikurangi dengan kebutuhan air atau outflow.

Contoh perhitungan storage yang akan direncanakan di lokasi FTSLK ITS untuk hujan bulan januari tahun 2000 pada tanggal 1 dan 2 adalah sebagai berikut.

Nilai inflow pada bulan desember 1999 tanggal 31 adalah kondisi penuh sebesar 9000 m<sup>3</sup> hingga besoknya pada tanggal 1 januari 2000, tampungan sebesar 9000 m<sup>3</sup>.

Nilai 6000 m<sup>3</sup> berasal dari trial dan error dimensi yaitu dengan percobaan dimensi pertama adalah dengan nilai

$b = 60$  meter

$h = 50$  meter

$d = 3$  meter

Volume inflow pada tanggal 1 januari 2000 = 453.71 m<sup>3</sup>, volume outflow adalah sebesar 0 m<sup>3</sup> dan nilai tampungan diasumsikan adalah penuh sebesar 9000 m<sup>3</sup>.

Volume inflow pada tanggal 2 januari 2000 = 654.1994 m<sup>3</sup>

Volume outflow pada tanggal 2 januari 2000 = 0 m<sup>3</sup> dan 1000 m<sup>3</sup>. Maka besar storage pada tanggal 2 januari 2000 adalah sebagai berikut.

Storage tanggal 2 januari 2000 adalah sebesar :

(storage tanggal 1 + inflow tanggal 2)- total outflow tanggal 2 januari

Maka hasilnya adalah sebagai berikut :

$$(9000 + 654.1994) - (0 + 1000) = 8654.19 \text{ m}^3$$

Berikut adalah contoh perhitungan storage untuk FTSLK ITS pada saat hujan bulan januari tahun 2000. Dapat dilihat pada tabel 4.21.

***Tabel 4.21 Hasil Perhitungan Storage Taman Alumni ITS***

TANGGAL	R (mm)				
	Buan Januari	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)

1	43	453.71		0	9000
2	62	654.19	1000	0	8654.19
3	86	907.43	1000	0	8561.63
4	0	0		0	8561.63
5	0	0		0	8561.63
6	0	0		0	8561.63
7	78	823.025	1000	0	8384.66
8	0	0		0	8384.66
9	0	0		0	8384.66
10	26	274.34	1000	0	7659.00
11	21	221.58	1000	0	6880.58
12	28	295.44		0	7176.03
13	10	105.51		0	7281.54
14	27	284.89		0	7566.44
15	0	0		0	7566.44
16	26	274.34	1000	0	6840.78
17	0	0		0	6840.78
18	0	0		0	6840.78
19	0	0		0	6840.78
20	0	0		18	6822.78
21	0	0		18	6804.78
22	0	0		18	6786.78
23	0	0		18	6768.78
24	0	0		18	6750.78

Tabel lanjutan storage bulan januari tahun 2000

25	0	0		18	6732.78
26	48	506.47		0	7239.26
27	0	0		0	7239.26

28	9	94.96		0	7334.22
29	13	137.17		0	7471.39
30	0	0		0	7471.39
31	30	316.54	1000	0	6787.94

Berikut adalah contoh perhitungan storage untuk FTK ITS pada saat hujan bulan januari tahun 2000. Dapat dilihat pada tabel 4.22.

*Tabel 4.22 Hasil Perhitungan Storage FTK ITS*

TANGGAL	R (mm)				
	Bulan JAN	Vol. l(m3)	Vol O 1	Vol O(m3)	DS(m3)
1	43	598.93		0	9000
2	62	863.58	1500	0	8363.58
3	86	1197.87	1500	0	8061.46
4	0	0		0	8061.46
5	0	0		0	8061.46
6	0	0		0	8061.46
7	78	1086.44	1500	0	7647.91
8	0	0		0	7647.91
9	0	0		0	7647.91
10	26	362.14		0	8010.06
11	21	292.50	1500	0	6802.57
12	28	390.00		0	7192.57
13	10	139.28		0	7331.86
14	27	376.07		0	7707.94
15	0	0		0	7707.94

Tabel lanjutan storage bulan januari tahun 2000

16	26	362.14		0	8070.09
17	0	0		0	8070.09

18	0	0		0	8070.09
19	0	0		0	8070.09
20	0	0		18	8052.09
21	0	0		18	8034.09
22	0	0		18	8016.09
23	0	0		18	7998.09
24	0	0		18	7980.09
25	0	0		18	7962.09
26	48	668.58		0	8630.67
27	0	0		0	8630.67
28	9	125.35	1500	0	7256.03
29	13	181.07		0	7437.11
30	0	0		0	7437.11
31	30	417.86		0	7854.97

Berikut adalah tabel 4.23 yaitu contoh perhitungan storage untuk perpustakaan ITS pada saat hujan bulan januari tahun 2000.

*Tabel 4.23 Storage Perpustakaan ITS*

TANGGAL	R (mm)				
	Bulan JAN	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)
1	43	573.23		0	7500
2	62	826.52	1300	0	7026.52
3	86	1146.47	1300	0	6872.99
4	0	0		0	6872.99
5	0	0		0	6872.99
6	0	0		0	6872.99
7	78	1039.82	1300	0	6612.81
8	0	0		0	6612.81

Tabel lanjutan storage bulan januari tahun 2000

9	0	0		0	6612.81
10	26	346.60	1300	0	5659.42

11	21	279.95		0	5939.37
12	28	373.26		0	6312.64
13	10	133.31		0	6445.95
14	27	359.93		0	6805.89
15	0	0		0	6805.89
16	26	346.60	1300	0	5852.50
17	0	0		0	5852.50
18	0	0		0	5852.50
19	0	0		0	5852.50
20	0	0		18	5834.50
21	0	0		18	5816.50
22	0	0		18	5798.50
23	0	0		18	5780.50
24	0	0		18	5762.50
25	0	0		18	5744.50
26	48	639.89	1300	0	5084.39
27	0	0		0	5084.39
28	9	119.97		0	5204.37
29	13	173.30		0	5377.68
30	0	0		0	5377.68
31	30	399.93		0	5777.61

Berikut adalah contoh perhitungan storage untuk robotika ITS pada saat hujan bulan januari tahun 2000. Dapat dilihat pada Tabel 4.24.

*Tabel 4.24 Hasil Perhitungan Storage Robotika ITS*

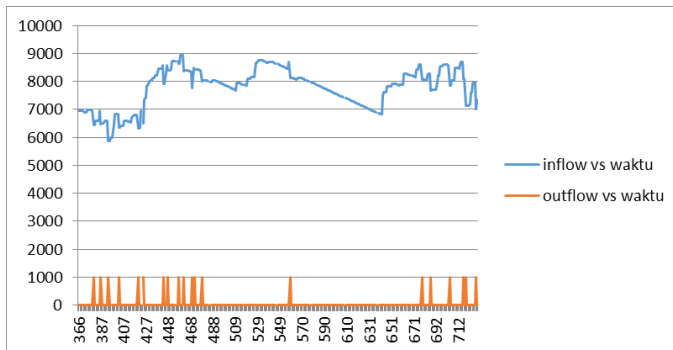
TANGGAL	R (mm)				
	Bulan JAN	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)
1	43	504.47		0	7500
2	62	727.38	1200	0	7027.38
3	86	1008.9517	1200	0	6836.33
4	0	0		0	6836.33
5	0	0		0	6836.33
6	0	0		0	6836.33
7	78	915.09	1200	0	6551.43
8	0	0		0	6551.43
9	0	0		0	6551.43
10	26	305.03		0	6856.46
11	21	246.37	1200	0	5902.83
12	28	328.49		0	6231.33
13	10	117.31		0	6348.65
14	27	316.76		0	6665.41
15	0	0		0	6665.41
16	26	305.03		0	6970.44
17	0	0		0	6970.44
18	0	0		0	6970.44
19	0	0		0	6970.44
20	0	0		18	6952.44

Tabel lanjutan storage bulan januari tahun 2000.

21	0	0		18	6934.44
22	0	0		18	6916.44

23	0	0		18	6898.44
24	0	0		18	6880.44
25	0	0		18	6862.44
26	48	563.13	1200	0	6225.58
27	0	0		0	6225.58
28	9	105.58		0	6331.17
29	13	152.51		0	6483.68
30	0	0		0	6483.68
31	30	351.95		0	6835.64

Untuk hubungan antara ketersediaan air (inflow), kebutuhan air (outflow) dan storage dapat dilihat pada grafik dibawah ini. Untuk grafik lainnya dapat dilihat pada lampiran. Contoh gambar grafik untuk lokasi FTSLK (Taman Alumni ITS) pada tahun 2001(dapat dilihat pada Gambar 4.20).



**Gambar 4.20** Grafik Inflow , Storage dan Outflow

#### 4.3.4 Perhitungan Routing Air

Perhitungan *routing* adalah perhitungan yang terdiri dari perhitungan inflow, outflow, storage hingga kedalaman dari tampungan. Hitungan inflow, outflow dan storage sudah dijelaskan



pada sub bab sebelumnya. Berikut akan lebih dijelaskan lagi perhitungan inflow, outflow, storage di lokasi FTSLK ITS hingga menentukan nilai kedalaman pada storage.

Nilai inflow pada bulan desember 1999 tanggal 31 adalah kondisi penuh sebesar  $9000 \text{ m}^3$  hingga besoknya pada tanggal 1 januari 2000, tampungan sebesar  $9000 \text{ m}^3$ .

Nilai  $9000 \text{ m}^3$  berasal dari trial dan eror dimensi yaitu dengan percobaan dimensi pertama adalah dengan nilai

$$c = 0.95$$

$$A = 11106.95 \text{ m}^2$$

$$b = 60 \text{ meter}$$

$$h = 50 \text{ meter}$$

$$d = 3 \text{ meter}$$

Volume inflow (  $c \times a \times r$  ) pada tanggal 1 januari 2000 =  $453.71 \text{ m}^3$ , volume outflow adalah sebesar  $0 \text{ m}^3$  dan nilai tampungan diasumsikan adalah penuh sebesar  $9000 \text{ m}^3$ .

$$\text{Volume inflow pada tanggal 2 januari 2000} = 654.1994 \text{ m}^3$$

$$\text{Volume outflow pada tanggal 2 januari 2000} = 0 \text{ m}^3 \text{ dan } 1000 \text{ m}^3.$$

Maka untuk menentukan besar storage pada tanggal 2 januari 2000 serta kedalaman adalah sebagai berikut.

Storage tanggal 2 januari 2000 adalah sebesar :

(storage tanggal 1 + inflow tanggal 2)- total outflow tanggal 2 januari

Maka hasilnya adalah sebagai berikut :

$$(9000 + 654.1994) - (0 + 1000) = 8654.199 \text{ m}^3$$

$$\text{Perhitungan kedalaman (d) adalah } \frac{\text{Storage}}{\text{Luas Sigma Tank}} \quad (4.2)$$

$$\text{Maka nilai d adalah } \frac{8654.199}{60 \times 50} = 2.88 \text{ m}$$

Keterangan :

Untuk kedalaman air harus memiliki nilai  $\leq 3$  meter. Hal tersebut berguna untuk menjaga kestabilan air yang artinya tidak adanya luapan air serta tidak adanya nilai minus atau kosong pada tampungan yang sedang direncanakan. Saat terdapat kedalaman  $\geq 3$  meter, maka dibutuhkan adanya saluran outflow untuk

mengurangi nilai kedalaman dan mengatasi adanya luapan air. Nilai outflow yang diambil adalah sebesar 1000 m<sup>3</sup>.

Berikut adalah contoh routing harian di lokasi FTSLK ITS pada hujan tahun 2000 di bulan januari. Dapat dilihat pada tabel 4.25.

*Tabel 4.25 Hasil Routing FTSLK (Taman Alumni ITS)*

TANGGAL	R (mm)
---------	--------

	Buan Januari	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	43	453.72		0	9000	3.00
2	62	654.20	1000	0	8654.20	2.88
3	86	907.44	1000	0	8561.64	2.85
4	0	0.00		0	8561.64	2.85
5	0	0.00		0	8561.64	2.85
6	0	0.00		0	8561.64	2.85
7	78	823.02	1000	0	8384.66	2.79
8	0	0.00		0	8384.66	2.79
9	0	0.00		0	8384.66	2.79
10	26	274.34	1000	0	7659.00	2.55
11	21	221.58	1000	0	6880.59	2.29
12	28	295.44		0	7176.03	2.39
13	10	105.52		0	7281.55	2.43
14	27	284.89		0	7566.44	2.52
15	0	0.00		0	7566.44	2.52
16	26	274.34	1000	0	6840.78	2.28
17	0	0.00		0	6840.78	2.28
18	0	0.00		0	6840.78	2.28
19	0	0.00		0	6840.78	2.28
20	0	0.00		18	6822.78	2.27
21	0	0.00		18	6804.78	2.27
22	0	0.00		18	6786.78	2.26
23	0	0.00		18	6768.78	2.26

Tabel lanjutan routing bulan januari tahun 2000

24	0	0.00		18	6750.78	2.25
----	---	------	--	----	---------	------

25	0	0.00		18	6732.78	2.24
26	48	506.48		0	7239.26	2.41
27	0	0.00		0	7239.26	2.41
28	9	94.96		0	7334.22	2.44
29	13	137.17		0	7471.40	2.49
30	0	0.00		0	7471.40	2.49
31	30	316.55	1000	0	6787.94	2.26

Berikut adalah contoh routing harian di lokasi FTK ITS pada hujan tahun 2000 di bulan januari. Dapat dilihat pada Tabel 4.26.

*Tabel 4.26 Hasil Routing FTK ITS*

TANGGAL	R (mm)					
	Bulan JAN	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	43	598.94		0	9000.00	3.00
2	62	863.59	1500	0	8363.59	2.79
3	86	1197.88	1500	0	8061.47	2.69
4	0	0.00		0	8061.47	2.69
5	0	0.00		0	8061.47	2.69
6	0	0.00		0	8061.47	2.69
7	78	1086.45	1500	0	7647.92	2.55
8	0	0.00		0	7647.92	2.55
9	0	0.00		0	7647.92	2.55
10	26	362.15		0	8010.07	2.67
11	21	292.51	1500	0	6802.57	2.27
12	28	390.01		0	7192.58	2.40
13	10	139.29		0	7331.87	2.44
14	27	376.08		0	7707.95	2.57
15	0	0.00		0	7707.95	2.57
16	26	362.15		0	8070.10	2.69
17	0	0.00		0	8070.10	2.69
18	0	0.00		0	8070.10	2.69
19	0	0.00		0	8070.10	2.69
20	0	0.00		18	8052.10	2.68
21	0	0.00		18	8034.10	2.68

Tabel lanjutan routing bulan januari tahun 2000.

22	0	0.00		18	8016.10	2.67
----	---	------	--	----	---------	------

23	0	0.00		18	7998.10	2.67
24	0	0.00		18	7980.10	2.66
25	0	0.00		18	7962.10	2.65
26	48	668.58		0	8630.68	2.88
27	0	0.00		0	8630.68	2.88
28	9	125.36	1500	0	7256.04	2.42
29	13	181.07		0	7437.11	2.48
30	0	0.00		0	7437.11	2.48
31	30	417.87		0	7854.98	2.62

Berikut adalah contoh routing harian di lokasi perpustakaan ITS pada hujan tahun 2000 di bulan januari. Dapat dilihat pada tabel 4.27.

*Tabel 4.27 Hasil Routing Perpustakaan*

TANGGAL	R (mm)					
	Bulan JAN	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	43	573.24		0	7500.00	3.00
2	62	826.53	1300	0	7026.53	2.81
3	86	1146.47	1300	0	6873.00	2.75
4	0	0.00		0	6873.00	2.75
5	0	0.00		0	6873.00	2.75
6	0	0.00		0	6873.00	2.75
7	78	1039.82	1300	0	6612.82	2.65
8	0	0.00		0	6612.82	2.65
9	0	0.00		0	6612.82	2.65
10	26	346.61	1300	0	5659.43	2.26
11	21	279.95		0	5939.38	2.38
12	28	373.27		0	6312.65	2.53
13	10	133.31		0	6445.96	2.58

Tabel lanjutan routing bulan januari tahun 2000.

14	27	359.94		0	6805.90	2.72
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15	0	0.00		0	6805.90	2.72
16	26	346.61	1300	0	5852.51	2.34
17	0	0.00		0	5852.51	2.34
18	0	0.00		0	5852.51	2.34
19	0	0.00		0	5852.51	2.34
20	0	0.00		18	5834.51	2.33
21	0	0.00		18	5816.51	2.33
22	0	0.00		18	5798.51	2.32
23	0	0.00		18	5780.51	2.31
24	0	0.00		18	5762.51	2.31
25	0	0.00		18	5744.51	2.30
26	48	639.89	1300	0	5084.40	2.03
27	0	0.00		0	5084.40	2.03
28	9	119.98		0	5204.38	2.08
29	13	173.30		0	5377.68	2.15
30	0	0.00		0	5377.68	2.15
31	30	399.93		0	5777.61	2.31

Berikut adalah contoh routing harian di lokasi robotika ITS pada hujan tahun 2000 di bulan januari. Dapat dilihat pada Tabel 4.28.

*Tabel 4.28 Hasil Routing Robotika ITS*

TANGGAL	R (mm)					
	Bulan JAN	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	43	504.48		0	7500.00	3.00
2	62	727.38	1200	0	7027.38	2.81
3	86	1008.95	1200	0	6836.34	2.73
4	0	0.00		0	6836.34	2.73
5	0	0.00		0	6836.34	2.73
6	0	0.00		0	6836.34	2.73
7	78	915.10	1200	0	6551.43	2.62
8	0	0.00		0	6551.43	2.62
9	0	0.00		0	6551.43	2.62
10	26	305.03		0	6856.46	2.74
11	21	246.37	1200	0	5902.84	2.36
12	28	328.50		0	6231.33	2.49
13	10	117.32		0	6348.65	2.54
14	27	316.76		0	6665.41	2.67
15	0	0.00		0	6665.41	2.67
16	26	305.03		0	6970.45	2.79
17	0	0.00		0	6970.45	2.79
18	0	0.00		0	6970.45	2.79
19	0	0.00		0	6970.45	2.79
20	0	0.00		18	6952.45	2.78

Tabel lanjutan routing bulan januari tahun 2000.

21	0	0.00		18	6934.45	2.77
22	0	0.00		18	6916.45	2.77



23	0	0.00		18	6898.45	2.76
24	0	0.00		18	6880.45	2.75
25	0	0.00		18	6862.45	2.74
26	48	563.14	1200	0	6225.58	2.49
27	0	0.00		0	6225.58	2.49
28	9	105.59		0	6331.17	2.53
29	13	152.52		0	6483.69	2.59
30	0	0.00		0	6483.69	2.59
31	30	351.96		0	6835.65	2.73

#### 4.4 Perhitungan Dimensi dan Kebutuhan Sigma Tank

Perhitungan dimensi Sigma Tank adalah berasal dari trial dan error nilai lebar, panjang dan kedalaman. Trial dan error bertujuan untuk mendapatkan nilai kedalaman serta tampungan yang cukup selama setiap tahunnya. Oleh karena itu, dimensi yang di trial dan error harus mampu menghasilkan nilai kedalaman Sigma Tank  $\leq 3$  meter. Hal tersebut dikarenakan 3 meter adalah kedalaman yang diasumsikan awal. Selain itu, nilai panjang, lebar dan kedalaman juga harus mampu menghasilkan tampungan atau Sigma Tank tidak negatif atau kekurangan air( dalam keadaan kosong). Dengan perhitungan trial dan eror serta adanya perhitungan routing, maka didapat nilai b, h dan d adalah sebagai berikut. Dapat dilihat pada Tabel 4.29.

**Tabel 4.29** Dimensi Sigma Tank FTSLK (Taman Alumni)

c	0.95	
---	------	--

Atap =	11106.95	m <sup>2</sup>
b =	60	m
l=	50	m
h=	3	m
dt =	1	hari

Dimensi Sigma Tank juga harus menyesuaikan dengan lahan yang ditinjau sebagai lokasi

adanya Sigma Tank yaitu di FTSLK ITS dengan luas lokasi adalah 62.45 meter dan 53.87 meter. Hal tersebut membuktikan bahwa lokasi di lahan parker/halaman depan departemen sipil ITS dapat digunakan untuk pemasangan Sigma Tank. Untuk perhitungan kebutuhan Sigma Tank dengan jumlah Sigma Tank sebanyak berapa buah adalah sebagai berikut. Sigma Tank yang memiliki dimensi :

Panjang = 60 meter

Lebar = 50 meter

Berikut adalah rekap dimensi untuk FTK, perpustakaan dan robotika ITS. Dapat dilihat pada Tabel 4.30 , 4.31 dan 4.32.

### 1. Perpustakaan ITS

*Tabel 4.30 Dimensi Sigma Tank di Perpustakaan ITS*

c	0.95	
Atap =	14032.7	m <sup>2</sup>
b =	50	m
l=	50	m
h=	3	m
dt =	1	hari

### 2. FTK ITS

**Tabel 4.31** *Dimensi Sigma Tank FTK ITS*

c	0.95	
Atap =	14661.93	m <sup>2</sup>
b =	60	m
l=	50	m
h=	3	m
dt =	1	hari

### 3. ROBOTIKA ITS

**Tabel 4.32** *Dimensi Sigma Tank Robotika ITS*

c	0.95	
Atap =	12349.47	m <sup>2</sup>
b =	50	m
l=	50	m
h=	3	m
dt =	1	hari

Spesifikasi Sigma Tank yang dipakai adalah penta (satu set berjumlah 5 Sigma Tank) yaitu adalah seperti gambar dibawah ini. Dapat dilihat pada Tabel 4.33.

*Tabel 4.33 Spesifikasi Sigma Tank*

Ukuran Tangki Modular Sigma Tank VT 844				Isi Tangki
Modular (Units)	Lebar (mm)	Panjang (mm)	Tinggi (mm)	Volume (Ltr)
Single (1)	390	782	410	125
Double (2)	390	782	820	250
Triple (3)	390	782	1230	375
Quad (4)	390	782	1640	500
Penta (5)	390	782	2050	625

Maka, untuk jumlah kebutuhan sisi panjang adalah sejumlah :

Panjang : Tinggi spek Sigma Tank penta

$60 \text{ m} : 2.05 \text{ m} = 29.26$  (dikarenakan satu set penta adalah terdiri dari 5 Sigma Tank, maka nilai 29.26 dibulatkan menjadi 30.

Untuk perhitungan jumlah kebutuhan sisi lebar adalah sebagai berikut.

Lebar : Panjang spek Sigma Tank penta

$50 \text{ m} : 0.782 \text{ m} = 63.9$  dibulatkan menjadi 64 buah.

Untuk perhitungan jumlah kebutuhan sisi kedalaman adalah sebagai berikut.

Kedalaman : lebar spek Sigma Tank Penta

$3 \text{ m} : 0.390 \text{ m} = 7.69$  dibulatkan menjadi 8 buah.

Rekap hitungan kebutuhan Sigma Tank dapat dilihat seperti dibawah ini. Dapat dilihat pada Tabel 4.34, 4.35, 4.36 dan 4.37.

## 1. Lokasi FTK ITS

*Tabel 4.34 Jumlah Kebutuhan Sigma Tank FTK*

N panjang	N lebar	N kedalaman
29.268	63.93	7.69
30	64	8

## 2. Lokasi Taman Alumni FTSLK ITS

*Tabel 4.35 Jumlah Kebutuhan Sigma Tank  
FTSLK(Taman Alumni)*

N panjang	N lebar	N kedalaman
29.268	63.9	7.69
30	64	8

## 3. Lokasi Robotika ITS

*Tabel 4.36 Jumlah Kebutuhan Sigma Tank Robotika*

N panjang	N lebar	N kedalaman
24.39	63.93	7.69
25	64	8

## 4. Lokasi Perpustakaan ITS

*Tabel 4.37 Jumlah Kebutuhan Sigma Tank Perpustakaan  
ITS*

N panjang	N lebar	N kedalaman
24.39	63.93	7.69
25	64	8

#### 4.5 Perhitungan Dimensi Pipa Saluran Inflow Sigma Tank

Pipa sebagai saluran inflow yang menerima air dari atap/catchment area membutuhkan perhitungan dimensi. Pipa-pipa yang merupakan saluran inflow dihitung di 4 lokasi yang ditinjau. Perhitungan dilakukan dengan analisa hidrolika. Berikut adalah contoh perhitungan.

Perhitungan dimensi pipa saluran inflow di lokasi FTK ITS adalah sebagai berikut.

Terdapat Tabel 4.38 dengan nilai-nilai sebagai berikut.

*Tabel 4.38 Nilai Catchment, C, N, Kemiringan dan Curah Hujan*

Pipa	Luas Catchment	R max	C	N	I
Pipa 1	410.985	140	0.95	0.01	0.012

Maka perhitungan diameter pipa untuk atap yang memiliki nilai catchment area 437.055 m<sup>2</sup> dan t = 2 jam adalah sebagai berikut.

Penyelesaian menggunakan trial dan eror nilai diameternya.

##### 1. Menentukan Q hidrologi

$$\begin{aligned}
 Q_{\text{hidrologi}} &= (C \times R \times A) / t (\text{dalam sekon}) \\
 &= (0.95 \times (140/1000) \times 437.055) / (2 \\
 &\quad \times 60 \times 60) \\
 &= 0.008 \text{ m}^3 / \text{sekon}
 \end{aligned}$$

##### 2. Menentukan Q hidrolika

Menentukan Q hidrolika dengan menggunakan trial dan error pada diameter pipa untuk mencapai Q hidrolika > Q hidrologi

Digunakan D = 0.125 meter

$$\begin{aligned}
 A_{\text{pipa}} &= \frac{1}{4} \times 3.14 \times d^2 \\
 &= \frac{1}{4} \times 3.14 \times 0.125 \times 0.125 \\
 &= 0.01226 \text{ m}^2
 \end{aligned}$$

$$P_{\text{pipa}} (\text{Keliling}) = 2 \times 3.14 \times d/2$$

$$\begin{aligned}
 &= 2 \times 3.14 \times 0.125/2 \\
 &= 0.39 \text{ meter} \\
 R &= A/P \\
 &= 0.01226/0.39 \\
 &= 0.0313 \text{ meter} \\
 V &= 1/n \times R^{2/3} \times I^{1/2} \\
 &= 1/0.01 \times 0.0313^{2/3} \times 0.012^{1/2} \text{ (asumsi} \\
 &\quad \text{kemiringan)} \\
 &= 1.07 \text{ m/sekon} \\
 Q \text{ hidrolika} &= A \times V \\
 &= 0.01226 \text{ m}^2 \times 1.07 \text{ m/sekon} \\
 &= 0.013177 \text{ m}^3/\text{s}
 \end{aligned}$$

Kesimpulan : Diperoleh  $Q \text{ hidrolika} > Q \text{ hidrologi}$  sehingga saluran pipa dapat digunakan.

Selain perhitungan di atas, berikut adalah contoh perhitungan saluran pipa inflow saat memiliki catchment gabungan. Contoh perhitungan pada saluran inflow 4 di lokasi FTK ITS.

Terdapat Tabel 4.39 dengan nilai-nilai sebagai berikut.

**Tabel 4.39** Nilai Catchment, Curah Hujan, Koefisien pengaliran,  $N$  dan Kemiringan

Pipa	Luas Catchment	R max	C	N	I
Pipa 1	437.055	140	0.95	0.01	0.012
Pipa 3	437.055	140	0.95	0.01	0.012

Maka untuk menentukan diameter pipa pada atap yang memiliki nilai catchment area  $437.055 + 437.055 \text{ m}^2$  dan  $t = 2$  jam adalah sebagai berikut.

Penyelesaian menggunakan trial dan eror nilai diameternya.

#### 1. Menentukan $Q \text{ hidrologi}$

$$\begin{aligned}
 Q_{\text{hidrologi}} &= (C \times R \times A) / t (\text{dalam sekon}) \\
 &= (0.95 \times (140/1000) \times (437.055 + 437.055)) / (2 \times 60 \times 60) \\
 &= 0.016 \text{ m}^3 / \text{sekon}
 \end{aligned}$$

## 2. Menentukan Q hidrolika

Menentukan Q hidrolika dengan menggunakan trial dan error pada diameter pipa untuk mencapai  $Q_{\text{hidrolika}} > Q_{\text{hidrologi}}$

Digunakan  $D = 0.15 \text{ meter}$ .

$$\begin{aligned}
 A_{\text{pipa}} &= \frac{1}{4} \times 3.14 \times d^2 \\
 &= \frac{1}{4} \times 3.14 \times 0.15 \times 0.15 \\
 &= 0.017663 \text{ m}^2
 \end{aligned}$$

$$\begin{aligned}
 P_{\text{pipa}} (\text{Keliling}) &= 2 \times 3.14 \times d/2 \\
 &= 2 \times 3.14 \times 0.15/2 \\
 &= 0.471 \text{ meter}
 \end{aligned}$$

$$\begin{aligned}
 R &= A/P \\
 &= 0.017663 / 0.471 \\
 &= 0.0375 \text{ meter}
 \end{aligned}$$

$$\begin{aligned}
 V &= \frac{1}{n} \times R^{2/3} \times I^{1/2} \\
 &= \frac{1}{0.01} \times 0.0375^{2/3} \times 0.012^{1/2} \text{ (asumsi kemiringan)} \\
 &= 1.213 \text{ m/sekon}
 \end{aligned}$$

$$\begin{aligned}
 Q_{\text{hidrolika}} &= A \times V \\
 &= 0.017663 \text{ m}^2 \times 1.213 \text{ m/sekon} \\
 &= 0.0214409 \text{ m}^3 / \text{s}
 \end{aligned}$$

Kesimpulan : Diperoleh  $Q_{\text{hidrolika}} > Q_{\text{hidrologi}}$  sehingga saluran pipa dapat digunakan.

Berikut adalah hasil perhitungan pipa-pipa atau saluran inflow dari berbagai lokasi sesuai dengan layout yang sudah tertera.



# 1. Pipa-pipa saluran inflow FTSLK ITS (Taman Alumni)

**Tabel 4.40** Rekapitulasi Hasil Hitungan Pipa Inflow  
FTSLK (Taman Alumni ) ITS

Atap	Luas Catchmen	R max	C	Volume	Q1	N	I	D	A	P	R	V	Q2	Status
Saluran 1	437.055	140	0.950	58.128	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
saluran 2	437.055	140	0.950	58.128	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
saluran 3	437.055	140	0.950	58.128	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 4	874.110	140	0.950	116.257	0.016	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 5	66.050	140	0.950	8.785	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 6	66.050	140	0.950	8.785	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 7	66.050	140	0.950	8.785	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 8	66.050	140	0.950	8.785	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 9	132.100	140	0.950	17.569	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 10	1029.115	140	0.950	136.872	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 11	1118.070	140	0.950	148.703	0.021	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 12	45.810	140	0.950	6.093	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 13	22.905	140	0.950	3.046	0.0004	0.010	0.012	0.040	0.001	0.126	0.010	0.501	0.001	OK
Saluran 14	1163.880	140	0.950	154.796	0.021	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 15	117.625	140	0.950	15.644	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 16	117.625	140	0.950	15.644	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 17	117.625	140	0.950	15.644	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 18	117.625	140	0.950	15.644	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 19	1399.130	140	0.950	186.084	0.026	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 20	1416.048	140	0.950	188.334	0.026	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 21	16.918	140	0.950	2.250	0.0003	0.010	0.012	0.032	0.001	0.100	0.008	0.431	0.0003	OK
Saluran 22	33.835	140	0.950	4.500	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 23	50.753	140	0.950	6.750	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 24	1466.800	140	0.950	195.084	0.027	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 25	130.885	140	0.950	17.408	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK

Lanjutan Tabel 4.40

Atap	Luas Catchmen	R max	C	Volume	Q1	N	I	D	A	P	R	V	Q2	Status
Saluran 26	152.203	140	0.950	20.243	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 27	1859.455	140	0.950	247.308	0.034	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 28	182.900	140	0.950	24.326	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 29	2042.355	140	0.950	271.633	0.038	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 30	2225.255	140	0.950	295.959	0.041	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 31	182.900	140	0.950	24.326	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 32	109.220	140	0.950	14.526	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 32a	109.220	140	0.950	14.526	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 33	109.220	140	0.950	14.526	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 34	109.220	140	0.950	14.526	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 35	218.440	140	0.950	29.053	0.004	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 36	218.440	140	0.950	29.053	0.004	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 37	22.520	140	0.950	2.995	0.0004	0.010	0.012	0.040	0.001	0.126	0.010	0.501	0.0006	OK
Saluran 38	45.040	140	0.950	5.990	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 39	67.560	140	0.950	8.985	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 40	22.520	140	0.950	2.995	0.0004	0.010	0.012	0.040	0.001	0.126	0.010	0.501	0.0006	OK
Saluran 41	182.900	140	0.950	24.326	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 42	182.900	140	0.950	24.326	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 43	274.350	140	0.950	36.489	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 44	401.340	140	0.950	53.378	0.007	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 45	401.340	140	0.950	53.378	0.007	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 46	584.240	140	0.950	77.704	0.011	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 47	584.240	140	0.950	77.704	0.011	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 48 a	425.230	140	0.950	56.556	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 48	1592.885	140	0.950	211.854	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 49	692.275	140	0.950	92.073	0.013	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 50	16.918	140	0.950	2.250	0.0003	0.010	0.012	0.032	0.001	0.100	0.008	0.431	0.0003	OK
Saluran 51	16.918	140	0.950	2.250	0.0003	0.010	0.012	0.032	0.001	0.100	0.008	0.431	0.0003	OK
Saluran 52	16.918	140	0.950	2.250	0.0003	0.010	0.012	0.032	0.001	0.100	0.008	0.431	0.0003	OK
Saluran 53	16.918	140	0.950	2.250	0.0003	0.010	0.012	0.032	0.001	0.100	0.008	0.431	0.0003	OK
Saluran 54	67.670	140	0.950	9.000	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 55	1652.128	140	0.950	219.733	0.031	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 56	169.973	140	0.950	22.606	0.003	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 57	169.973	140	0.950	22.606	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 58	1822.100	140	0.950	242.339	0.034	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 59	221.285	140	0.950	29.431	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 60	221.285	140	0.950	29.431	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 61	221.285	140	0.950	29.431	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK

Lanjutan Tabel 4.40

Atap	Luas Catchmen	R max	C	Volume	Q1	N	I	D	A	P	R	V	Q2	Status
Saluran 62	221.285	140	0.950	29.431	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 63	442.570	140	0.950	58.862	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 64	442.570	140	0.950	58.862	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 65	60.438	140	0.950	8.038	0.001	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 66	342.160	140	0.950	45.507	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 67	60.438	140	0.950	8.038	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 68	120.875	140	0.950	16.076	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 69	463.035	140	0.950	61.584	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 70	967.725	140	0.950	128.707	0.018	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 75	4891.423	140	0.950	650.559	0.090	0.010	0.012	0.300	0.071	0.942	0.075	1.931	0.136	OK
Saluran 76	4891.423	140	0.950	650.559	0.090	0.010	0.012	0.300	0.071	0.942	0.075	1.931	0.136	OK
Saluran 77	252.255	140	0.950	33.550	0.005	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 78	126.128	140	0.950	16.775	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 79	378.383	140	0.950	50.325	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 80	504.510	140	0.950	67.100	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 81	504.510	140	0.950	67.100	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 82	865.985	140	0.950	115.176	0.016	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 83	1914.818	140	0.950	254.671	0.035	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 84	466.670	140	0.950	62.067	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 85	361.475	140	0.950	48.076	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 86	361.475	140	0.950	48.076	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 87	2156.533	140	0.950	286.819	0.040	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 88	241.715	140	0.950	32.148	0.004	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 89	2810.163	140	0.950	373.752	0.052	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 90	2810.163	140	0.950	373.752	0.052	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 91	411.915	140	0.950	54.785	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 92	3410.823	140	0.950	453.639	0.063	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 93	188.745	140	0.950	25.103	0.003	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 94	188.745	140	0.950	25.103	0.003	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 95	3599.568	140	0.950	478.742	0.066	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 96	4032.778	140	0.950	536.359	0.074	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 97	433.210	140	0.950	57.617	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 98	4465.988	140	0.950	593.976	0.082	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 99	424.240	140	0.950	56.424	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 100	424.240	140	0.950	56.424	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK

Lanjutan Tabel 4.40

Atap	Luas Catchmen	R max	C	Volume	Q1	N	I	D	A	P	R	V	Q2	Status
Saluran 101	424.240	140	0.950	56.424	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 102	848.480	140	0.950	112.848	0.016	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 103	5314.468	140	0.950	706.824	0.098	0.010	0.012	0.300	0.071	0.942	0.075	1.931	0.136	OK
Saluran 104	5314.468	140	0.950	706.824	0.098	0.010	0.012	0.300	0.071	0.942	0.075	1.931	0.136	OK
Saluran 105	5314.468	140	0.950	706.824	0.098	0.010	0.012	0.300	0.071	0.942	0.075	1.931	0.136	OK
Saluran 106	48.193	140	0.950	6.410	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 107	48.193	140	0.950	6.410	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 108	96.385	140	0.950	12.819	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 109	144.578	140	0.950	19.229	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 110	240.963	140	0.950	32.048	0.004	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 111	44.745	140	0.950	5.951	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 112	44.745	140	0.950	5.951	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 113	89.490	140	0.950	11.902	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 114	178.980	140	0.950	23.804	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 115	178.980	140	0.950	23.804	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 116	34.668	140	0.950	4.611	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 117	78.003	140	0.950	10.374	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 118	187.647	140	0.950	24.957	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 119	230.982	140	0.950	30.721	0.004	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 120	274.317	140	0.950	36.484	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 121	352.320	140	0.950	46.859	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 122	381.138	140	0.950	50.691	0.007	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 123	409.955	140	0.950	54.524	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 124	28.818	140	0.950	3.833	0.001	0.010	0.012	0.040	0.001	0.126	0.010	0.501	0.001	OK
Saluran 125	438.773	140	0.950	58.357	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 126	467.590	140	0.950	62.189	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 127	159.425	140	0.950	21.204	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 128	627.015	140	0.950	83.393	0.012	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 129	1027.403	140	0.950	136.645	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 130	318.850	140	0.950	42.407	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 131	1346.253	140	0.950	179.052	0.025	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 132	1346.253	140	0.950	179.052	0.025	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK

## 2. Pipa-pipa saluran inflow FTK ITS

***Tabel 4.41 Rekapitulasi Hasil Perhitungan Pipa Inflow  
FTK ITS***

Saluran Inflow	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 1	355.795	140	0.950	47.321	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 2	355.795	140	0.950	47.321	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 3	355.795	140	0.950	47.321	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 4	711.590	140	0.950	94.641	0.013	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 5	323.670	140	0.950	43.048	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 6	323.670	140	0.950	43.048	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 7	323.670	140	0.950	43.048	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 8	1035.260	140	0.950	137.690	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 9	1358.930	140	0.950	180.738	0.025	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 10	118.960	140	0.950	15.822	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
saluran 11 A	118.960	140	0.950	15.822	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
saluran 11	1596.850	140	0.950	212.381	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
saluran 12	373.508	140	0.950	49.677	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 13	2063.735	140	0.950	274.477	0.038	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
saluran 14	2063.735	140	0.950	274.477	0.038	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
saluran 15	26.300	140	0.950	3.498	0.0005	0.010	0.012	0.040	0.001	0.126	0.010	0.501	0.0006	OK
saluran 16	280.000	140	0.950	37.240	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 17	280.000	140	0.950	37.240	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 18	560.000	140	0.950	74.480	0.010	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 19	568.356	140	0.950	75.591	0.010	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 20	2632.091	140	0.950	350.068	0.049	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
saluran 21	110.960	140	0.950	14.758	0.002	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 22	110.960	140	0.950	14.758	0.002	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 23	110.960	140	0.950	14.758	0.002	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 24	221.920	140	0.950	29.515	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 25	385.620	140	0.950	51.287	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 26	607.540	140	0.950	80.803	0.011	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 27	385.620	140	0.950	51.287	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 28	993.160	140	0.950	132.090	0.018	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 29	1020.900	140	0.950	135.780	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 30	1020.900	140	0.950	135.780	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK

Lanjutan Tabel 4.41

Saluran Inflow	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
saluran 31	55.480	140	0.950	7.379	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
saluran 32	1020.900	140	0.950	135.780	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 33	55.480	140	0.950	7.379	0.001	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
saluran 34	1076.380	140	0.950	143.159	0.020	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 35	334.000	140	0.950	44.422	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
saluran 36	41.750	140	0.950	5.553	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 36a	590.151	140	0.950	78.490	0.011	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 37	445.168	140	0.950	59.207	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 37 a	101.690	140	0.950	13.525	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 37 b	203.380	140	0.950	27.050	0.004	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 37 c	101.690	140	0.950	13.525	0.002	0.010	0.012	0.065	0.003	0.204	0.016	0.693	0.002	OK
Saluran 38	419.745	140	0.950	55.826	0.008	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 39	1524.520	140	0.950	202.761	0.028	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 40	1524.520	140	0.950	202.761	0.028	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 41	123.660	140	0.950	16.447	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 42	123.660	140	0.950	16.447	0.002	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 43	123.660	140	0.950	16.447	0.002	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 44	247.320	140	0.950	32.894	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 45	1076.380	140	0.950	143.159	0.020	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 46	159.430	140	0.950	21.204	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 47	159.430	140	0.950	21.204	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 48	782.550	140	0.950	104.079	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 49	782.550	140	0.950	104.079	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 50	1338.978	140	0.950	178.084	0.025	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 51	370.952	140	0.950	49.337	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 52	1709.930	140	0.950	227.421	0.032	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 53	2093.770	140	0.950	278.471	0.039	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 54	383.840	140	0.950	51.051	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 55	383.840	140	0.950	51.051	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 56	2093.770	140	0.950	278.471	0.039	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 57	2477.610	140	0.950	329.522	0.046	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 58	499.625	140	0.950	66.450	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 59	999.250	140	0.950	132.900	0.018	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 60	967.605	140	0.950	128.691	0.018	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK

Lanjutan Tabel 4.41

Saluran Inflow	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 61	1467.230	140	0.950	195.142	0.027	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 62	162.025	140	0.950	21.549	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 63	1129.630	140	0.950	150.241	0.021	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 64	162.025	140	0.950	21.549	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 65	1291.655	140	0.950	171.790	0.024	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 66	1291.655	140	0.950	171.790	0.024	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 67	2290.905	140	0.950	304.690	0.042	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 68	2403.875	140	0.950	319.715	0.044	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 69	112.970	140	0.950	15.025	0.002	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 70	240.070	140	0.950	31.929	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 71	240.070	140	0.950	31.929	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 72	240.070	140	0.950	31.929	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 73	480.140	140	0.950	63.859	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 74	480.140	140	0.950	63.859	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 75	323.670	140	0.950	43.048	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 76	803.810	140	0.950	106.907	0.015	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 77	323.670	140	0.950	43.048	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 78	1127.480	140	0.950	149.955	0.021	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 79	349.360	140	0.950	46.465	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 80	1476.840	140	0.950	196.420	0.027	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 81	1476.840	140	0.950	196.420	0.027	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 82	349.360	140	0.950	46.465	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 83	1826.200	140	0.950	242.885	0.034	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 84	1826.200	140	0.950	242.885	0.034	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 85	1826.200	140	0.950	242.885	0.034	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 86	1826.200	140	0.950	242.885	0.034	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 87	1947.655	140	0.950	259.038	0.036	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 88	1947.655	140	0.950	259.038	0.036	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 89	121.455	140	0.950	16.154	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 90	2069.110	140	0.950	275.192	0.038	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK

### 3. Pipa-pipa saluran inflow Robotika ITS

***Tabel 4.42 Rekapitulasi Hasil Perhitungan Pipa Inflow  
Robotika ITS***

Saluran Inflow	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 1	1008.155	140	0.950	134.085	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
saluran 2	1008.155	140	0.950	134.085	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 3	1008.155	140	0.950	134.085	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 4	2016.310	140	0.950	268.169	0.037	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 5	2016.310	140	0.950	268.169	0.037	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 6	1756.060	140	0.950	233.556	0.032	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 7	3772.370	140	0.950	501.725	0.070	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 8	1411.848	140	0.950	187.776	0.026	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 9	1411.848	140	0.950	187.776	0.026	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 10	489.525	140	0.950	65.107	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 11	840.737	140	0.950	111.818	0.016	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 12	141.755	140	0.950	18.853	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 13	37.790	140	0.950	5.026	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 14	179.545	140	0.950	23.879	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 15	37.790	140	0.950	5.026	0.001	0.010	0.012	0.050	0.002	0.157	0.013	0.581	0.001	OK
Saluran 16	217.335	140	0.950	28.906	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 17	141.755	140	0.950	18.853	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 18	359.090	140	0.950	47.759	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 19	848.615	140	0.950	112.866	0.016	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 20	848.615	140	0.950	112.866	0.016	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 21	1689.352	140	0.950	224.684	0.031	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 22	215.735	140	0.950	28.693	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 23	1905.087	140	0.950	253.377	0.035	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 24	215.735	140	0.950	28.693	0.004	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 25	2120.822	140	0.950	282.069	0.039	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 26	168.568	140	0.950	22.419	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 27	337.135	140	0.950	44.839	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 28	505.703	140	0.950	67.258	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 29	392.443	140	0.950	52.195	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 30	1290.588	140	0.950	171.648	0.024	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK

Lanjutan tabel 4.42



Saluran Inflow	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 31	1290.588	140	0.950	171.648	0.024	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 32	1290.588	140	0.950	171.648	0.024	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 33	1416.878	140	0.950	188.445	0.026	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 34	126.290	140	0.950	16.797	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 35	1416.878	140	0.950	188.445	0.026	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 36	1416.878	140	0.950	188.445	0.026	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 37	209.815	140	0.950	27.905	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 38	1626.693	140	0.950	216.350	0.030	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 39	1626.693	140	0.950	216.350	0.030	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 40	1626.693	140	0.950	216.350	0.030	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 41	1626.693	140	0.950	216.350	0.030	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 42	1626.693	140	0.950	216.350	0.030	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 43	299.725	140	0.950	39.863	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 44	599.450	140	0.950	79.727	0.011	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 45	1626.693	140	0.950	216.350	0.030	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 46	2394.558	140	0.950	318.476	0.044	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 47	2394.558	140	0.950	318.476	0.044	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 48	2394.558	140	0.950	318.476	0.044	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 49	767.865	140	0.950	102.126	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 50	2394.558	140	0.950	318.476	0.044	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 51	2394.558	140	0.950	318.476	0.044	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK

#### 4. Pipa-pipa saluran inflow Perpustakaan ITS

**Tabel 4.43 Rekapitulasi Hasil Perhitungan Pipa Inflow**  
*Perpustakaan ITS*

Atap	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 1	314.560	140	0.950	41.836	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 2	314.560	140	0.950	41.836	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 3	314.560	140	0.950	41.836	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 4	314.560	140	0.950	41.836	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 5	320.030	140	0.950	42.564	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 6	314.560	140	0.950	41.836	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 7	320.030	140	0.950	42.564	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 8	320.030	140	0.950	42.564	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 9	229.140	140	0.950	30.476	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 10	229.140	140	0.950	30.476	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 11	320.030	140	0.950	42.564	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 12	320.030	140	0.950	42.564	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 13	112.270	140	0.950	14.932	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 14	224.540	140	0.950	29.864	0.004	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 15	320.030	140	0.950	42.564	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 16	123.325	140	0.950	16.402	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 17	123.325	140	0.950	16.402	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 18	123.325	140	0.950	16.402	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 19	320.030	140	0.950	42.564	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 20	507.070	140	0.950	67.440	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK

Lanjutan tabel 4.43

Atap	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 21	187.040	140	0.950	24.876	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 22	507.070	140	0.950	67.440	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 23	507.070	140	0.950	67.440	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 24	199.210	140	0.950	26.495	0.004	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 25	507.070	140	0.950	67.440	0.009	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 26	199.210	140	0.950	26.495	0.004	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 27	507.070	140	0.950	67.440	0.009	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 28	225.795	140	0.950	30.031	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 29	225.795	140	0.950	30.031	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 30	732.865	140	0.950	97.471	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 31	732.865	140	0.950	97.471	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 32	732.865	140	0.950	97.471	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 33	377.317	140	0.950	50.183	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 34	732.865	140	0.950	97.471	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 35	377.317	140	0.950	50.183	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 36	732.865	140	0.950	97.471	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 37	732.865	140	0.950	97.471	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 38	377.317	140	0.950	50.183	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 39	732.865	140	0.950	97.471	0.014	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 40	1305.852	140	0.950	173.678	0.024	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 41	732.865	140	0.950	97.471	0.014	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 42	5625.975	140	0.950	748.255	0.104	0.010	0.012	0.300	0.071	0.942	0.075	1.931	0.136	OK
Saluran 43	550.005	140	0.950	73.151	0.010	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 44	550.005	140	0.950	73.151	0.010	0.010	0.012	0.125	0.012	0.393	0.031	1.074	0.013	OK
Saluran 45	825.160	140	0.950	109.746	0.015	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 46	274.850	140	0.950	36.555	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 47	274.850	140	0.950	36.555	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 48	378.225	140	0.950	50.304	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 49	928.535	140	0.950	123.495	0.017	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 50	114.430	140	0.950	15.219	0.002	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK

Lanjutan tabel 4.43

Atap	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 51	103.375	140	0.950	13.749	0.002	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 52	1856.940	140	0.950	246.973	0.034	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 52 a	928.405	140	0.950	123.478	0.017	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 53	188.645	140	0.950	25.090	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 54	188.645	140	0.950	25.090	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 55	566.450	140	0.950	75.338	0.010	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 56	377.805	140	0.950	50.248	0.007	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 57	566.450	140	0.950	75.338	0.010	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 58	944.255	140	0.950	125.586	0.017	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 59	1079.870	140	0.950	143.623	0.020	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 60	1079.870	140	0.950	143.623	0.020	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 61	1254.440	140	0.950	166.841	0.023	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 62	174.570	140	0.950	23.218	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 62a	165.290	140	0.950	21.984	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 63	165.290	140	0.950	21.984	0.003	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 64	1585.020	140	0.950	210.808	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 65	165.290	140	0.950	21.984	0.003	0.010	0.012	0.080	0.005	0.251	0.020	0.797	0.004	OK
Saluran 66	1585.020	140	0.950	210.808	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 67	1585.020	140	0.950	210.808	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 68	1585.020	140	0.950	210.808	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 69	1585.020	140	0.950	210.808	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 70	1682.965	140	0.950	223.834	0.031	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 71	841.483	140	0.950	111.917	0.016	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 72	926.398	140	0.950	123.211	0.017	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 73	1141.778	140	0.950	151.856	0.021	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 74	1271.743	140	0.950	169.142	0.023	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 75	107.690	140	0.950	14.323	0.002	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 76	107.690	140	0.950	14.323	0.002	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 77	1379.433	140	0.950	183.465	0.025	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 78	193.230	140	0.950	25.700	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK

Lanjutan tabel 4.43

Atap	Luas Catchment	R max	C	Volume	Q1	Nd	I	D	A	P	R	V	Q2	Status
Saluran 79	193.230	140	0.950	25.700	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 80	1572.663	140	0.950	209.164	0.029	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 81	1765.893	140	0.950	234.864	0.033	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 82	1765.893	140	0.950	234.864	0.033	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 83	339.318	140	0.950	45.129	0.006	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 84	678.635	140	0.950	90.258	0.013	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 85	2783.845	140	0.950	370.251	0.051	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 86	1055.553	140	0.950	140.388	0.019	0.010	0.012	0.200	0.031	0.628	0.050	1.472	0.046	OK
Saluran 87	210.690	140	0.950	28.022	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 88	210.690	140	0.950	28.022	0.004	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 89	716.235	140	0.950	95.259	0.013	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 89a	269.661	140	0.950	35.865	0.005	0.010	0.012	0.090	0.006	0.283	0.023	0.862	0.005	OK
Saluran 90	294.855	140	0.950	39.216	0.005	0.010	0.012	0.100	0.008	0.314	0.025	0.925	0.007	OK
Saluran 91	716.235	140	0.950	95.259	0.013	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 92	1011.090	140	0.950	134.475	0.019	0.010	0.012	0.150	0.018	0.471	0.038	1.214	0.021	OK
Saluran 93	3839.398	140	0.950	510.640	0.071	0.010	0.012	0.250	0.049	0.785	0.063	1.709	0.084	OK
Saluran 94	4961.048	140	0.950	659.819	0.092	0.010	0.012	0.300	0.071	0.942	0.075	1.931	0.136	OK

#### 4.6 Perhitungan Dimensi Saluran Outflow Sigma Tank

Saluran outflow pada Sigma Tank terbagi atas 2 yaitu outflow untuk supply kebutuhan air dan outflow untuk mengatasi adanya luapan banjir.

##### 1. Perhitungan Outflow Untuk Mengatasi Luapan Banjir

Perhitungan saluran outflow tersebut memiliki konsep yang sama dengan perhitungan drainase.

Perhitungan tersebut dimulai dengan berbagai langkah-langkah yaitu sebagai berikut.

##### 4.6.1 Pengelolaan Data Curah Hujan

Curah hujan yang dikelola adalah curah hujan yang paling mempengaruhi yaitu curah hujan di Stasiun Hujan Keputih.

Pengelolaan data hujan adalah data curah hujan tahunan yang diambil paling maksimum selama setiap tahun. Berikut adalah rekapan hasil hujan maksimum dari tahun 2000- 2014 melalui pencatatan Stasiun Hujan Keputih. Dapat dilihat pada Tabel 4.44.

*Tabel 4.44 Rekap Curah Hujan Maksimum Tahunan*

Tahun	Rmaks
-------	-------

1990	70
1991	60
1992	105
1993	95
1994	85
1995	90
1996	90
1997	115
2000	88
2001	103
2002	123
2003	102
2004	58
2005	110
2006	140
2007	127
2008	90
2009	120
2010	90
2011	78

Tabel lanjutan 4.44

<b>Tahun</b>	<b>Rmaks</b>
--------------	--------------

2012	85
2013	80
2014	134

#### 4.6.2 Analisa Hujan Rata- Rata

Dalam menganalisa hujan rata-rata, biasanya menggunakan metode-metode sebagai berikut :

1. Polygon Thiessen
2. Arithmetic Mean
3. Ishoyet

Dalam Tugas Akhir perencanaan Sigma Tank ini, akan dipakai satu stasiun hujan yang sangat berpengaruh di ITS yaitu Stasiun Hujan Keputih sebagai pencatat data hujan.

#### 4.6.3 Pengukuran Dispersi

##### 4.6.3.1 Metode Distribusi Normal dan Gumbel

Berikut adalah tabel perhitungan pengukuran Distribusi Normal dan Gumbel.

*Tabel 4.45 Hasil Perhitungan Distribusi Normal dan Gumbel*

No	R(mm)	Tahun	Ranking	X rata-rata	X-Xrata2	(X-Xrata2)^2	(X-Xrata2)^4
1	140	2006	1	66.434783	74	5411.84	29288025.28
2	134	2014	2		68	4565.06	20839760.03
3	127	2007	3		61	3668.15	13455291.83
4	123	2002	4		57	3199.62	10237592.58
5	120	2009	5		54	2869.23	8232495.22
6	110	2005	7		44	1897.93	3602131.32
7	103	2001	9		37	1337.02	1787609.44

Lanjutan tabel 4.39

8	102	2003	10	66.434783	36	1264.88	1599933.27
9	90	2008	14		24	555.32	308379.71
10	90	2010	15		24	555.32	308379.71

11	88	2000	16		22	465.06	216279.50
12	85	2012	18		19	344.67	118795.55
13	80	2013	19		14	184.02	33861.57
14	78	2011	20		12	133.75	17890.20
15	58	2004	23		-8	71.15	5061.69
<b>Jumlah</b>	<b>1528</b>					<b>26523.01</b>	<b>90051486.92</b>

Keterangan :

Curah hujan (mm) = X

X rata-rata = 66.434

Jumlah data = 15

Perhitungan Standar Deviasi

$$S = \sqrt{\frac{\sum (X_i - \bar{X}_{rat})^2}{n - 1}}$$

$$S = \sqrt{\frac{26523.01}{15-1}} \quad (4.3)$$

$$S = 43.52$$

Perhitungan koefisien skewness

$$Cs = \frac{\frac{n}{(n-2)(n-1)} \sum_{i=1}^n (X_i - \bar{X})^3}{S^3}$$

$$Cs = \frac{\frac{15}{(15-2)(15-1)} 1486004.13}{43.52^3} \quad (4.4)$$

$$Cs = 1.48$$

Perhitungan koefisien kurtosis

$$Ck = \frac{n^2 \sum (X_i - \bar{X}_{rat})^4}{(n-1)(n-2)(n-3)S^4}$$

$$Ck = \frac{15^2 \times 90051486.92}{(15-1)(15-2)(15-3)43.52^4} \quad (4.5)$$

$$Ck = 2.58$$

Tabel Syarat Nilai Cs dan Ck dapat dilihat pada tabel 4.46.



*Tabel 4.46 Syarat Cs dan Ck Pada Gumbel dan Normal*

Distribusi	Syarat Nilai Cs	Syarat Nilai Ck	Nilai Cs	Nilai CK	Keterangan
Distribusi Normal	$Cs \approx 0$	$Ck = 0$	1.48	2.58	Syarat Tidak Diterima
Distribusi Gumbel	$Cs \leq 1,1396$	$Ck \leq 5,4002$	1.48	2.58	Syarat Tidak Diterima

#### 4.6.3.2 Metode Distribusi Log Pearson III

Berikut adalah tabel perhitungan pengukuran Distribusi Log Pearson III.

*Tabel 4.47 Hasil Perhitungan Log Pearson*

No	Tahun	$X_i$	$\log X_i$	$(\log X - \log X_i)$	$(\log X - \log X_i)^2$	$(\log X - \log X_i)^3$	$(\log X - \log X_i)^4$
1	2006	140	2.15	-0.149	0.022	-0.0033	0.00050
2	2014	134	2.13	-0.130	0.017	-0.0022	0.00029
3	2007	127	2.10	-0.107	0.011	-0.0012	0.00013
4	2002	123	2.09	-0.093	0.009	-0.0008	0.00008
5	2009	120	2.08	-0.083	0.007	-0.0006	0.00005
6	2005	110	2.04	-0.045	0.002	-0.0001	0.00000
7	2001	103	2.01	-0.016	0.000	0.0000	0.00000
8	2003	102	2.01	-0.012	0.000	0.0000	0.00000

Lanjutan Tabel 4.47

No	Tahun	$X_i$	$\log X_i$	$(\log X - \log X_i)$	$(\log X - \log X_i)^2$	$(\log X - \log X_i)^3$	$(\log X - \log X_i)^4$
----	-------	-------	------------	-----------------------	-------------------------	-------------------------	-------------------------

				Log Xi)			
9	2008	90	1.95	0.042	0.002	0.0001	0.00000
10	2010	90	1.95	0.042	0.002	0.0001	0.00000
11	2000	88	1.94	0.052	0.003	0.0001	0.00001
12	2012	85	1.93	0.067	0.005	0.0003	0.00002
13	2013	80	1.90	0.094	0.009	0.0008	0.00008
14	2011	78	1.89	0.105	0.011	0.0011	0.00012
15	2004	58	1.76	0.233	0.054	0.0127	0.00296
Jumlah			29.9499522	0,0	0.153674767	0.00699306	0.004236179

Keterangan :

Curah hujan (mm) = X

Log X rata-rata = 1.976

Jumlah data = 15

Perhitungan Standar Deviasi

$$\begin{aligned}
 S &= \sqrt{\frac{\sum (\log x_{\text{rat}} - \log x_i)^2}{n-1}} \\
 &= \sqrt{\frac{0.2286}{15-1}} \\
 &= 0,1047
 \end{aligned}
 \tag{4.6}$$

Perhitungan koefisien skewness untuk dapat nilai K

$$\begin{aligned}
 Cs &= \frac{\frac{n}{(n-2)(n-1)} \sum_{i=1}^n (X_i - \bar{X})^3}{S^3} \\
 Cs &= \frac{15}{(15-2)(15-1)} \frac{0.00699306}{0.1047^3}
 \end{aligned}
 \tag{4.7}$$

Cs = 0.501 (Dapat dilihat pada Tabel 4.42).

**Tabel 4.48** Syarat Cs dan Ck Pada Metode Log Pearson III

Distribusi	Syarat Nilai Cs	Syarat Nilai Ck	Nilai Cs	Nilai CK	Keterangan
<b>Log Pearson Type III</b>	$Cs \pm 0$	$Ck \pm 0$	1.48	-	Syarat Diterima

#### 4.6.4 Curah Hujan Rencana

Curah hujan rencana adalah hujan harian maksimum yang akan digunakan untuk menghitung intensitas hujan. Curah hujan rencana juga dapat diartikan sebagai besarnya kemungkinan kejadian hujan ekstrim pada suatu waktu tertentu. Perhitungan curah hujan rencana menggunakan periode ulang. Periode ulang yang dipilih untuk menentukan curah hujan rencana adalah 10 tahun. Dari perhitungan pengukuran dispersi, distribusi frekuensi yang sesuai syarat adalah Distribusi *Log Pearson Tipe III*. Curah hujan rencana Distribusi Log Pearson Tipe III didapatkan dengan rumus.

$$\begin{aligned} X &= \text{data hujan maksimum setiap tahun} \\ \text{Log } x &= \log x \text{ rata-rata} + K \cdot S_d \text{ Log } X \quad (4.8) \end{aligned}$$

Dimana

$$\text{Log } x \text{ rata-rata} = 1.9769$$

Periode

$$Cs = 0.348$$

$$K = 1.315 \text{ (nilai K untuk Distribusi Log Pearson Tipe III serta dengan interpolasi)}$$

Nilai K berdasarkan koefisien skewness dan periode ulang tahunan. Berikut adalah tabel nilai K dengan nilai  $Cs = 0.348$  dan periode ulang 10 tahun. Dapat dilihat pada Tabel 4.49.

**Tabel 4.49** Nilai K Berdasarkan Cs dan PUH

Koef. Kemencengan	Periode Ulang (Tahun)
-------------------	-----------------------

(CS)	10
0.3	1.309
0.348	1.315
0.4	1.317

Interpolasi adalah sebagai berikut.

$$\begin{aligned}
 &\frac{0.4}{1.317-1.309} = \frac{0.348}{K-1.317} \\
 K &= 1.315 \\
 Sd \log x &= 0.1019 \\
 \log x &= \log x \text{ rata-rata} + K \times Sd \log x \quad (4.9) \\
 &= 1.9769 + (1.315 \times 0.1019) \\
 &= 2.11105 \\
 X &= 129.13 \text{ mm}
 \end{aligned}$$

Jadi curah hujan rencana pada periode ulang 10 tahunan dengan Metode Log Pearson III adalah 129.13 mm

#### 4.6.5 Uji Kecocokan

Diperlukan pengujian parameter yang berfungsi untuk menguji kecocokan distribusi frekuensi terhadap fungsi distribusi peluang sehingga dapat diketahui jenis sebaran yang dipilih. Pengujian parameter yang dipakai adalah Chi Kuadrat dan Smirnov Kolmogorov.

##### 4.6.5.1 Uji Kecocokan Chi Kuadrat

Perhitungan Chi Kuadrat untuk Log Pearson III.

- Banyaknya data (n) = 15
- Derajat signifikan ( $\alpha$ ) = 5%
- Jumlah kelas/Sub Kelompok (G) =  $1 + 3,322 \log n$   
(4.11)  
=  $1 + 3,322 \log 15$   
= 4,91 ~ 5
- Derajat Kebebasan (DK) =  $G - R - 1$   
=  $5 - 1 - 1 = 3$

Untuk  $dk = 3$ , signifikan = 5%, maka dari tabel uji *Chi-Kuadrat* didapat harga  $\chi^2_{cr} = 7.815$

Tabel uji *Chi Kuadrat* dapat dilihat pada bab Tinjauan Pustaka.

$$\begin{aligned} \bullet \text{ EF} &= n/DK & (4.10) \\ &= 15/5 = 3 \end{aligned}$$

Terdapat 3 jumlah kelas/sub kelompok (G). Dari 3 jumlah kelas/sub kelompok (G) tersebut ditentukan nilai batas tiap kelompok. Perhitungan nilai batas sub kelompok menggunakan rumus:

$$Y = \bar{Y} + k. S \quad (4.11)$$

Berikut adalah tabel 4.50 yang merupakan tabel hubungan peluang dan K.

**Tabel 4.50 Nilai K Berdasarkan Peluang**

peluang	k
0,75	-0,67
0,7	-0,52
0,6	-0,25
0,4	0,25
0,38	0,318
0,3	0,52
0,25	0,67
0,2	0,84
0,19	0,895
0,1	1,28

Perhitungan Nilai Batas

- Batas 1

$$Y \leq Y_1$$

$$Y_1 = \bar{Y} + k. S$$

$$Y_1 = 1,97 + (-0,52). 0,1$$

$$Y_1 = 1,94$$

(4.12)

- Batas 2

$$Y_1 < Y \leq Y_2$$

$$Y_2 = \bar{Y} + k. S$$

(4.13)

$$Y_2 = 1,97 + (0,25) \cdot 0,1$$

$$Y_2 = 2,02$$

- Batas 3

$$Y_2 < Y \leq Y_3$$

$$Y_3 = \bar{Y} + k \cdot S \quad (4.14)$$

$$Y_3 = 1,97 + (0,52) \cdot 0,1$$

$$Y_3 = 2,05$$

- Batas 4

$$Y_3 < Y \leq Y_4$$

$$Y_4 = \bar{Y} + k \cdot S \quad (4.15)$$

$$Y_4 = 1,97 + (0,84) \cdot 0,1$$

$$Y_4 = 2,08467$$

- Batas 5

$$Y_4 < Y \leq Y_5$$

$$Y_5 = \bar{Y} + k \cdot S \quad (4.16)$$

$$Y_5 = 1,97 + (1,28) \cdot 0,1$$

$$Y_5 = 2,13$$

- Batas 6

$$Y_4 < Y_5$$

Perhitungan  $O_i$

$O_i$  merupakan jumlah data yang termasuk dalam nilai batas tersebut

- Batas 1 = 4

- Batas 2 = 5

- Batas 3 = 1

- Batas 4 = 1

- Batas 5 = 3

- Batas 6 = 1

Perhitungan  $E_i$

$$\begin{aligned} E_i &= \frac{\sum O_i}{\text{jumlah kelas}} \\ &= \frac{15}{5} \\ &= 3 \end{aligned}$$

Perhitungan  $X^2$

$$X^2 = \frac{(O_i - E_i)^2}{E_i} \quad (4.17)$$

*Tabel 4.51 Hasil Perhitungan  $O_i$  dan  $E_i$*

No	Interval	Jumlah $o_i$	$E_i$	$(O_i - E_i)^2$	$(O_i - E_i)^2 / E_i$
1	$X \leq 1.94218$	4	3	1	0.33333333
2	1.94218-2.02286	5	3	4	1.3
3	2.02286-2.05114	1	3	4	1.3
4	2.05114-2.08467	1	3	4	1.3
5	2.08467-2.13077	3	3	0	0.0
6	2.13077 < x	1	3	4	1.3
	Total	15	18	9	5.7

$X^2$  kritis = Nilai Chi Kuadrat Hitung

Nilai Chi-Kuadrat hitung = 5,70

Berikut adalah tabel 4.52 yang merupakan tabel derajat kepercayaan.

*Tabel 4.52 Nilai Derajat Kepercayaan*

dk	$\alpha$ derajat kepercayaan							
	0,995	0,99	0,975	0,95	0,05	0,025	0,01	0,005
1	0,0000393	0,000157	0,000982	0,00393	3,841	5,024	6,635	7,879
2	0,0100	0,0201	0,0506	0,103	5,991	7,378	9,210	10,597
3	0,0717	0,115	0,216	0,352	7,815	9,348	11,345	12,838
4	0,207	0,297	0,484	0,711	9,488	11,143	13,277	14,860
5	0,412	0,554	0,831	1,145	11,070	12,832	15,086	16,750
6	0,676	0,872	1,237	1,635	12,592	14,449	16,812	18,548
7	0,989	1,239	1,690	2,167	14,067	16,013	18,475	20,278
8	1,344	1,646	2,180	2,733	15,507	17,535	20,090	21,955
9	1,735	2,088	2,700	3,325	16,919	19,023	21,666	23,589
10	2,156	2,558	3,247	3,940	18,307	20,483	23,209	25,188
11	2,603	3,053	3,816	4,575	19,675	21,920	24,725	26,757
12	3,074	3,571	4,404	5,226	21,026	23,337	26,217	28,300
13	3,565	4,107	5,009	5,892	22,362	24,736	27,688	29,819
14	4,075	4,660	5,629	6,571	23,685	26,119	29,141	31,319
15	4,601	5,229	6,262	7,261	24,996	27,488	30,578	32,801
16	5,142	5,812	6,908	7,962	26,296	28,845	32,000	34,267
17	5,697	6,408	7,564	8,672	27,587	30,191	33,409	35,718
18	6,265	7,015	8,231	9,390	28,869	31,526	34,805	37,156
19	6,844	7,633	8,907	10,117	30,144	32,582	36,191	38,582
20	7,434	8,260	9,591	10,851	31,410	34,170	37,566	39,997
21	8,034	8,897	10,283	11,591	32,671	35,479	38,932	41,401
22	8,643	9,542	10,982	12,338	33,924	36,781	40,289	42,796
23	9,260	10,196	11,689	13,091	36,172	38,076	41,638	44,181
24	9,886	10,856	12,401	13,848	36,415	39,364	42,980	45,558
25	10,520	11,524	13,120	14,611	37,652	40,646	44,314	46,928
26	11,160	12,198	13,844	15,379	38,885	41,923	45,642	48,290
27	11,808	12,879	14,573	16,151	40,113	43,194	46,963	49,645
28	12,461	13,565	15,308	16,928	41,337	44,461	48,278	50,993
29	13,121	14,256	16,047	17,708	42,557	45,722	49,588	52,336
30	13,787	14,953	16,791	18,493	43,773	46,979	50,892	53,672

Berdasarkan tabel di atas didapat dengan

Derajat Kebebasan (DK) = 3

Derajat signifikan  $\alpha$  = 5%

Didapat Nilai

Nilai Chi Teoritis = 7,815

Nilai Chi-Kuadrat hitung < Nilai Chi Teoritis

5,7 < 7,815

Maka uji nilai diterima.



#### 4.6.5.2 Uji Kecocokan Smirnov Kolmogorov

Uji kecocokan *Smirnov-Kolmogorov*, sering juga disebut uji kecocokan non parametik (*non parametric test*), karena pengujiannya tidak menggunakan fungsi distribusi tertentu (Soewarno,1995). Dapat dilihat pada Tabel 4.53.

*Tabel 4.53 Hasil Perhitungan Uji Smirnov Kolmogorov*

R(mm)	Tahun	Ranking	$P = m/(n+1)$	Rmaks	m	$P(x) = m/(n+1)$	$P(x) < 1-P$	$f(t) = (X-X_r)/S_d$	$P^*X = m/(n-1)$	$P^*x = 1-P^*$	D
140	2006	1	0.04166667	140	1	0.042	0.958	2.119	0.045	0.955	0.004
134	2014	2	0.08333333	134	2	0.083	0.917	1.946	0.091	0.909	0.008
127	2007	3	0.125	127	3	0.125	0.875	1.744	0.136	0.864	0.011
123	2002	4	0.16666667	123	4	0.167	0.833	1.629	0.182	0.818	0.015
120	2009	5	0.20833333	120	5	0.208	0.792	1.543	0.227	0.773	0.019
110	2005	7	0.29166667	110	7	0.292	0.708	1.255	0.318	0.682	0.027
103	2001	9	0.375	103	9	0.375	0.625	1.053	0.409	0.591	0.034
102	2003	10	0.41666667	102	10	0.417	0.583	1.024	0.455	0.545	0.038
90	2008	14	0.58333333	90	14	0.583	0.417	0.679	0.636	0.364	0.053
90	2010	15	0.625	90	15	0.625	0.375	0.679	0.682	0.318	0.057
88	2000	16	0.66666667	88	16	0.667	0.333	0.621	0.727	0.273	0.061
85	2012	18	0.75	85	18	0.750	0.250	0.535	0.818	0.182	0.068
80	2013	19	0.79166667	80	19	0.792	0.208	0.391	0.864	0.136	0.072
78	2011	20	0.83333333	78	20	0.833	0.167	0.333	0.909	0.091	0.076
58	2004	23	0.95833333	58	23	0.958	0.042	-0.243	1.045	-0.045	0.087

Banyaknya data (n) = 15

Dmax = 0,087

Berikut adalah tabel 4.54 yang merupakan tabel nilai Do.

*Tabel 4.54 Nilai Do*

n	$\alpha$			
	0,2	0,1	0,05	0,01
5	0,45	0,51	0,56	0,67
10	0,32	0,37	0,41	0,49
15	0,27	0,3	0,34	0,4
20	0,23	0,26	0,29	0,36
25	0,21	0,24	0,27	0,32
30	0,19	0,22	0,24	0,29
35	0,18	0,2	0,23	0,27
40	0,17	0,19	0,21	0,25
45	0,16	0,18	0,2	0,24
50	0,15	0,17	0,19	0,23
N >	1,07	1,22	1,36	1,63
50	$\sqrt{N^{0,5}}$	$\sqrt{N^{0,5}}$	$\sqrt{N^{0,5}}$	$\sqrt{N^{0,5}}$

Jumlah Data (n) = 15

Derajat kepercayaan = 5%

Berdasarkan tabel didapatkan nilai

$D_o = 0,34$

Karena nilai  $D_{max} < D_o$  ( $0,087 < 0,34$ ), maka persamaan distribusi *Log Pearson Tipe III* diterima.

#### 4.6.6 Analisa Debit Banjir Rencana

Perhitungan debit banjir rencana menggunakan metode rasional yaitu dengan rumus.

$$Q_p = (1/3.6) \times C \times I \times A \quad (4.18)$$

Dimana

$Q_p$  = Debit puncak ( $m^3/s$ )

$C$  = Koefisien pengaliran

$I$  = Intensitas hujan (mm/jam)

$A$  = Luas daerah pengaruh ( $km^2$ )

##### 4.6.6.1 Koefisien Pengaliran

Koefisien pengaliran adalah variabel untuk menentukan besarnya limpasan permukaan tersebut dimana penentuannya

didasarkan pada kondisi daerah pengaliran dan karakteristik hujan yang jatuh di daerah tersebut.

Berikut adalah tabel 4.55 yaitu berupa nilai koefisien pengaliran.

*Tabel 4.55 Koefisien Limpasan untuk Metode Rasional*

Deskripsi lahan/karakter permukaan	Koefisien aliran, C
Business	
perkotaan	0,70 - 0,95
pinggiran	0,50 - 0,70
Perumahan	
rumah tunggal	0,30 - 0,50
multiunit, terpisah	0,40 - 0,60
multiunit, tergabung	0,60 - 0,75
perkampungan	0,25 - 0,40
apartemen	0,50 - 0,70
Industri	
ringan	0,50 - 0,80
berat	0,60 - 0,90
Perkerasan	
aspal dan beton	0,70 - 0,95
batu bata, paving	0,50 - 0,70
Atap	0,75 - 0,95
Halaman, tanah berpasir	
datar 2%	0,05 - 0,10
rata-rata 2 - 7%	0,10 - 0,15
curam, 7%	0,15 - 0,20
Halaman, tanah berat	
datar 2%	0,13 - 0,17
rata-rata 2 - 7%	0,18 - 0,22
curam, 7%	0,25 - 0,35
Halaman kereta api	0,10 - 0,35
Taman tempat bermain	0,20 - 0,35
Taman, perkuburan	0,10 - 0,25

Deskripsi lahan/karakter permukaan	Koefisien aliran, C
Hutan	
datar, 0 - 5%	0,10 - 0,40
bergelombang, 5 - 10%	0,25 - 0,50
berbukit. 10 - 30%	0,30 - 0,60

Untuk atap dan lahan bata/paving menggunakan nilai koefisien pengaliran sebesar 0.95 dan 0.75.

$$C \text{ gabungan} = ((0.95 \times A_{\text{atap}}) + (0.75 \times A_{\text{lahan}})) / (A_{\text{atap}} + A_{\text{lahan}})$$

$$C \text{ gabungan} = (0.95 \times 0.000214068 \text{ km}^2) + (0.75 \times 0.0003) / (0.000215068 + 0.0003)$$

$$C \text{ gabungan} = 0.925$$

#### 4.6.6.2 Waktu Konsentrasi (Tc)

Waktu konsentrasi (Tc) adalah waktu pengaliran air dari titik terjauh pada lahan hingga masuk pada saluran.

Berikut adalah contoh perhitungan Tc di saluran 75 pada lokasi FTSLK (Taman Alumni ITS).

$$T_c = T_o + T_f$$

$$t_0 = 1.44 \times \left( nd \times \frac{L_0}{\sqrt{S}} \right)^{0.467} \quad (4.19)$$

Nilai nd dapat dilihat seperti tabel 4.56 berikut.

*Tabel 4.56 Nilai Koefisien hambatan (Nd)*

<b>Jenis Permukaan</b>	<b>nd</b>
<b>Permukaan impervious dan licin</b>	<b>0.02</b>
<b>Tanah padat terbuka dan licin</b>	<b>0.10</b>
<b>Permukaan sedikit berumput, tanah dengan tanaman berjajar, tanah terbuka kekasaran sedang</b>	<b>0.20</b>
<b>Padang rumput</b>	<b>0.40</b>
<b>Lahan dengan pohon-pohon musim gugur</b>	<b>0.60</b>
<b>Lahan dengan pohon-pohon berdaun, hutan lebat, lahan berumput tehal</b>	<b>0.80</b>

Lebar miring atap ( $L_o$ ) = 9.5 m

Kemiringan atap = 0.25

Nd = 0.02

To atap =  $1.44 \times ((0.02 \times 9.5)/(0.25^{0.5}))^{0.467}$

To atap1 = 0.92 menit

To atap2 = 11.45 menit( dari Tc saluran 58)

L(Panjang Sal) = 72 meter

Perhitungan Tf

$$Tf = \frac{L}{v} \quad (4.20)$$

$$Tf = (72/0.76)/60$$

$$Tf = 1.56 \text{ menit}$$

Lebar lahan = 6m

Nd = 0.2

Kemiringan lahan = 0.01

To lahan =  $1.44 \times ((0.2 \times 6)/(0.01^{0.5}))^{0.467}$

To lahan = 4.59 menit

Tc = To pakai + Tf

Tc = 11.45 menit + 1.56 menit = 13.01menit

Berikut adalah hasil hitungan dengan mempertimbangkan lahan. Dapat dilihat pada tabel 4.57 sampai 4.78.

## FTSLK Outflow 1

**Tabel 4.57** Nilai  $T_c$  Saluran Outflow 1 FTSLK (Taman Alumni)

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	C atap	luas (m <sup>2</sup> )	luas lahan (km <sup>2</sup> )	C lahan	C gab	Lebar	To (menit)	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
75	72	4891.42	0.004891423	0.95	300	0.0003	0.75	0.9384	6	4.595577918	9.5	0.92	11.45	0.767	1.56	13.01

## FTSLK Outflow 2

**Tabel 4.58** Nilai  $T_c$  Saluran Outflow 2 FTSLK (Taman Alumni)

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	C atap	luas (m <sup>2</sup> )	luas lahan (km <sup>2</sup> )	C lahan	C gab	Lebar	To (menit)	Lebar Miring (m)	To (menit)	To pakai (menit)	V (m/s)	Tf	Tc (menit)
105	12	5314.47	0.0053	0.95	300	0.0003	0.75	0.94	6	4.60	0	22.50	22.50	0.77	0.26	22.76

## FTSLK Outflow 3

**Tabel 4.59** Nilai  $T_c$  Saluran Outflow 3 FTSLK (Taman Alumni)

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	C atap	luas (m <sup>2</sup> )	luas lahan (km <sup>2</sup> )	C lahan	C gab	Lebar (m)	To (menit)	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
132	100	1346.25	0.001346253	0.95	360	0.00036	0.75	0.91	6	4.60	0	11.48	11.48	0.77	2.2	13.7

Untuk lokasi FTK, Perpustakaan dan Robotika ITS adalah sebagai berikut.

### Robotika Outflow 1

**Tabel 4.60** Nilai Tc Saluran Outflow 1 Robotika

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	Catap	luas (m <sup>2</sup> )	luas lahan (km <sup>2</sup> )	C lahan	C gab	Lebar(m)	To (menit)	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
51.00	69.00	2394.56	0.002395	0.95	400.00	0.0004	0.75	0.92	8.00	5.26	0.00	12.66	12.66	0.87	1.32	13.98

### Robotika Outflow 2

**Tabel 4.61** Nilai Tc Saluran Outflow 2 Robotika ITS

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	Catap	luas (m <sup>2</sup> )	luas lahan (km <sup>2</sup> )	C lahan	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
25	193.00	2120.82	0.0021208	0.95	400.00	0.000400	0.75	0.92	0.00	6.97	6.97	0.87	3.70	10.67

### Perpustakaan Outflow 1

**Tabel 4.62** Nilai Tc Saluran Outflow 1 Perpustakaan

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	Catap	luas (m <sup>2</sup> )	luas lahan (km <sup>2</sup> )	C lahan	C gab	Lebar	To (menit)	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
42	45	732.87	0.000733	0.95	1100	0.0011	0.75	0.83	22	8.430530269	0	11.54	11.54	1.065	0.70	12.25

## Perpustakaan Outflow 2

**Tabel 4.63 Nilai Tc Saluran Outflow 2 Perpustakaan**

Atap (m2)	Atap (km2)	C atap	luas (m2)	luas lahan (km2)	C lahan	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
3839.40	0.003839398	0.95	1100	0.0011	0.75	0.905	0	11.52	11.52	1.065	2.10	14.34

## FTK Outflow 1

**Tabel 4.64 Nilai Tc Saluran Outflow 1 FTK**

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	luas (m2)	luas lahan (km2)	C lahan	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
45	482	1076.38	0.001076	0.95	120.00	0.0001200	0.75	0.93	0.00	8.97	27.76	1.065	7.54	35.31

## FTK Outflow 2

**Tabel 4.65 Nilai Tc Saluran Outflow 2 FTK**

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	luas (m2)	luas lahan (km2)	C lahan	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
90	348	2069.1	0.002069	0.95	100	0.0001	0.75	0.941	0	11.25	11.25	1.065	5.45	16.70

## FTK Outflow 3

**Tabel 4.66 Nilai Tc Saluran Outflow 3 FTK**

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	luas (m2)	luas lahan (km2)	C lahan	C gab	Lebar(M)	To (menit)	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
57	374	2477.61	0.00248	0.95	100	0.0001	0.75	0.94	2	2.7512	0	7.67	16.70	1.065009351	5.85	22.55



## FTK Outflow 4

*Tabel 4.67 Nilai Tc Saluran Outflow 4 FTK*

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	C atap	luas (m <sup>2</sup> )	luas lahan (km <sup>2</sup> )	C lahan	C gab	Lebar	To (menit)	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
20	333	2632.09	0.002632091	0.95	120.00	0.0001	0.75	0.94	2	2.75	0	15.49	22.55	1.065	5.21	27.76

**Tabel 4.68** Rekap Tc Saluran outflow 1 pada FTSLK ITS(Taman Alumni)

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
2	65	437.06	0.000437055	0.95	0.95	6.13	0.75	0.75	0.3	3.61	4.36
3	11	437.06	0.000437055	0.95	0.95	0	0.75	4.36	0.5	0.37	4.72
4	2	874.11	0.00087411	0.95	0	0	4.72	4.72	0.3	0.11	4.84
5	8	66.05	0.00006605	0.95	0.95	7.32	0.81	0.81	0.3	0.44	1.26
7	8	66.05	0.00006605	0.95	0.95	7.32	0.81	0.81	0.3	0.44	1.26
8	15	66.05	0.00006605	0.95	0	0	0.81	0.81	0.3	0.83	1.26
6	15	66.05	0.00006605	0.95	0	0	0.81	0.81	0.3	0.83	1.26
9	2	132.10	0.0001321	0.95	0	0	1.26	1.26	0.3	0.11	1.26
10	5	1095.17	0.001095165	0.95	0.95	5.29	0.70	0.70	0.3	0.28	0.98
11	7	1118.07	0.00111807	0.95	0.95	5.29	0.70	4.84	0.3	0.39	5.22
13	7	22.91	0.000022905	0.95	0.95	5.29	0.70	0.70	0.3	0.39	1.09
12	5	45.81	0.00004581	0.95	0.95	5.29	0.70	1.09	0.3	0.28	1.36
14	3	1163.88	0.00116388	0.95	0.95	0	0.00	5.22	0.3	0.17	5.39
15	12	117.63	0.000117625	0.95	0.95	0	0.00	5.39	0.3	0.67	6.06
16	14	117.63	0.000117625	0.95	0	6.61	0.77	6.06	0.3	0.78	6.84
17	14	1281.51	0.001281505	0.95	0.95	6.61	0.77	0.77	0.3	0.78	1.55
18	12	1281.51	0.001281505	0.95	0.95	6.61	0.77	6.84	0.3	0.67	7.50
19	6	1399.13	0.00139913	0.95	0.95	6.61	7.50	7.50	0.3	0.33	7.84
20	8	1416.05	0.001416048	0.95	0.95	3.77	0.60	7.84	0.3	0.44	8.28
21	8	16.92	1.69175E-05	0.95	0.95	3.77	0.60	0.60	0.3	0.44	1.04
22	8	33.84	0.000033835	0.95	0.95	3.77	0.60	1.04	0.3	0.44	1.48
23	8	50.75	5.07525E-05	0.95	0.95	3.77	0.60	1.48	0.3	0.44	1.93
24	3	1466.80	0.0014668	0.95	0.95	3.77	0.60	7.84	0.3	0.17	8.00
25	10	130.89	0.000130885	0.95	0.95	4.43	0.64	0.64	0.3	0.56	1.20
26	8	261.77	0.00026177	0.95	0.95	4.43	0.64	1.20	0.3	0.44	1.64
27	10	1859.46	0.001859455	0.95	0.95	4.43	0.64	8.00	0.3	0.56	8.56
28	41	182.90	0.0001829	0.95	0.95	7.83	0.84	0.84	0.3	2.28	3.12
29	12	2042.36	0.002042355	0.95	0	0	0.00	8.56	0.3	0.67	9.22
30	2	2042.36	0.002042355	0.95	0.95	7.83	0.00	9.22	0.3	0.11	9.34
31	41	182.90	0.0001829	0.95	0.95	7.83	0.84	0.84	0.3	2.28	3.12
32	15	109.22	0.00010922	0.95	0.95	6.53	0.77	0.77	0.3	0.83	1.60
32a	12	109.22	0.00010922	0.95	0	0	0.00	0.00	0.3	0.67	0.67
33	12	109.22	0.00010922	0.95	0	0	0.00	1.60	0.3	0.67	2.27
34	7.5	109.22	0.00010922	0.95	0.95	6.53	0.77	0.67	0.3	0.42	1.08
57	35	2271.57	0.00227157	0.95	0.95	7.52	0.82	9.34	0.3	1.94	11.28
58	3	3923.70	0.003923698	0.95	0.95	0	11.28	11.28	0.3	0.17	11.45
35	7.5	218.44	0.00021844	0.95	0.95	6.53	0.77	0.77	0.3	0.42	1.19
36	9	218.44	0.00021844	0.95	0.95	6.53	0.77	1.19	0.3	0.50	1.69

Lanjutan Rekap Tc Saluran outflow 1 pada FTSLK ITS

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
37	10	22.52	0.00002252	0.95	0.95	5.01	0.68	0.68	0.3	0.56	1.24
38	9	45.04	0.00004504	0.95	0.95	5.01	0.68	1.24	0.3	0.50	1.74
39	10	67.56	0.00006756	0.95	0.95	5.01	0.68	1.74	0.3	0.56	2.29
40	5	22.52	0.00002252	0.95	0.95	5.01	0.68	0.68	0.3	0.28	0.96
41	3	182.90	0.0001829	0.95	0	0	0.00	0.00	0.3	0.17	0.17
42	29	182.90	0.0001829	0.95	0.95	5.07	0.68	0.68	0.3	1.61	2.29
43	33	182.90	0.0001829	0.95	0.95	5.07	0.68	0.68	0.3	1.83	2.52
44	4	401.34	0.00040134	0.95	0.95	5.07	0.68	2.29	0.3	0.22	2.52
45	8	401.34	0.00040134	0.95	0.95	5.07	0.68	2.52	0.3	0.44	2.96
46	40	584.24	0.00058424	0.95	0	0	0.00	2.96	0.3	2.22	5.18
47	25	584.24	0.00058424	0.95	0	0	2.96	2.96	0.3	1.39	4.35
54	3	534.09	0.00053409	0.95	0.95	9.95	0.94	0.94	0.3	0.17	1.10
48	23	1592.89	0.001592885	0.95	0.95	9.95	0.94	4.35	0.3	1.28	5.63
49	20	692.28	0.000692275	0.95	0.95	9.95	0.94	1.15	0.3	1.11	2.26
50	4	16.92	1.69175E-05	0.95	0.95	3.75	0.59	0.59	0.3	0.22	0.82
51	3	16.92	1.69175E-05	0.95	0.95	3.75	0.59	0.59	0.3	0.17	0.76
52	4	16.92	1.69175E-05	0.95	0.95	3.75	0.59	0.76	0.3	0.22	0.98
53	3	16.92	1.69175E-05	0.95	0.95	3.75	0.59	0.82	0.3	0.17	0.98
54	3	67.67	0.00006767	0.95	0	0	0.00	0.98	0.3	0.17	1.15
55	22	1652.13	0.001652128	0.95	0	0	5.63	5.63	0.3	1.22	6.85
56	35	169.97	0.000169973	0.95	0.95	5.91	0.73	0.73	0.3	1.94	2.68
57	35	169.97	0.000169973	0.95	0.95	5.91	0.73	9.34	0.3	1.94	11.28
58	3	1822.10	0.0018221	0.95	0	0	0.00	11.28	0.3	0.17	11.45
59	21	221.29	0.000221285	0.95	0.95	7.22	0.81	0.81	0.3	1.17	1.97
60	21	221.29	0.000221285	0.95	0.95	7.22	0.81	0.81	0.3	1.17	1.97
61	2	221.29	0.000221285	0.95	0	0	0.00	1.97	0.3	0.11	2.08
62	9	221.29	0.000221285	0.95	0.95	4.38	0.64	1.97	0.3	0.50	2.47
63	60	442.57	0.00044257	0.95	0	0	0.00	2.47	0.3	3.33	5.81
64	29	442.57	0.00044257	0.95	0	0	2.47	2.47	0.3	1.61	4.08
65	15	60.44	6.04375E-05	0.95	0.95	8.3	0.86	0.86	0.3	0.83	1.69
66	15	342.16	0.00034216	0.95	0.95	8.3	0.86	4.08	0.3	0.83	4.92
67	15	60.44	6.04375E-05	0.95	0.95	8.3	0.86	0.86	0.3	0.83	1.69
68	15	120.88	0.000120875	0.95	0.95	8.3	0.86	1.69	0.3	0.83	2.53
69	27	463.04	0.000463035	0.95	0	0	0.00	4.92	0.3	1.50	6.42
69a	33	252.35	0.000252345	0.95	0.95	8.45	0.87	0.87	0.3	1.83	2.70
69b	33	252.35	0.000252345	0.95	0.95	8.45	0.87	0.87	0.3	1.83	2.70
69c	5	504.69	0.00050469	0.95	0	0	0.00	2.70	0.3	0.28	2.98
70	54	967.73	0.000967725	0.95	0	0	0.00	6.42	0.3	3.00	9.42
75	72	4891.42	0.004891423	0.95	0.9384	9.5	0.92	11.45	0.767	1.56	13.01

**Tabel 4.69** Rekap Tc Saluran outflow 2 pada FTSLK  
ITS(Taman Alumni)

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring(m)	To(menit)	To pakai (menit)	V (m/s)	Tf	Tc(menit)
77	16	252.26	0.0002523	0.95	0.95	10.91	0.98	1.51	0.3	0.89	2.40
78	16	126.13	0.0001261	0.95	0.95	10.91	0.98	0.98	0.5	0.53	1.51
79	16	378.38	0.0003784	0.95	0.95	10.91	0.98	2.40	0.3	0.89	3.29
80	4	504.51	0.0005045	0.95	0.95	10.91	0.98	3.29	0.3	0.22	3.51
81	12	504.51	0.0005045	0	0	0	3.51	3.51	0.3	0.67	4.18
82	8	865.99	0.000866	0	0	8.93	0.89	4.18	0.3	0.44	4.62
83	15	1914.82	0.0019148	0.95	0.95	0	4.62	4.62	0.3	0.83	5.46
85	45	361.48	0.0003615	0.95	0.95	8.93	0.89	0.89	0.3	2.50	3.39
86	30	361.48	0.0003615	0.95	0.95	0	3.39	3.39	0.3	1.67	5.06
87	40	2156.53	0.0021565	0.95	0.95	7.17	0.80	5.06	0.3	2.22	7.28
88	50	241.72	0.0002417	0.95	0.95	7.17	0.80	0.80	0.3	2.78	3.58
89	14	2810.16	0.0028102	0.95	0.95	10.29	0.95	7.28	0.3	0.78	8.06
90	50	2810.16	0.0028102	0.95	0.95	0	8.06	8.06	0.3	2.78	10.83
91	22	411.92	0.0004119	0.95	0.95	0	10.83	10.83	0.3	1.22	12.06
92	22	3410.82	0.0034108	0.95	0.95	7.44	0.82	12.06	0.3	1.22	13.28
93	17	188.75	0.0001887	0.95	0.95	7.44	0.82	0.82	0.3	0.94	1.76
94	2	188.75	0.0001887	0.95	0.95	0	1.76	1.76	0.3	0.11	1.87
95	40	3599.57	0.0035996	0	0	0	13.28	13.28	0.3	2.22	15.50
96	40	4032.78	0.0040328	0.95	0.95	6.68	0.78	15.50	0.3	2.22	17.72
97	6	433.21	0.0004332	0.95	0.95	6.68	0.78	0.78	0.3	0.33	1.11
98	46	4465.99	0.004466	0.95	0.95	0	17.72	17.72	0.3	2.56	20.28
99	46	424.24	0.0004242	0.95	0.95	6.81	0.78	0.78	0.3	2.56	3.34
100	15	424.24	0.0004242	0.95	0.95	6.81	0.78	0.78	0.3	0.83	1.62
101	7	424.24	0.0004242	0.95	0.95	0	1.62	1.62	0.3	0.39	2.01
102	12	848.48	0.0008485	0.95	0.95	0	2.01	2.01	0.3	0.67	2.67
103	28	5314.47	0.0053145	0.95	0.95	0	20.28	20.28	0.3	1.56	21.83
104	12	5314.47	0.0053145	0.95	0.95	0	21.83	21.83	0.3	0.67	22.50
105	12	5314.47	0.0053145	0.95	0.94	0	22.50	22.50	0.77	0.26	22.76

**Tabel 4.70** Rekap Tc Saluran outflow 3 pada FTSLK  
ITS(Taman Alumni)

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc(menit)
106	12	48.19	4.81925E-05	0.95	0.95	6.6	0.77	0.77	0.3	0.7	1.4
107	12	48.19	4.81925E-05	0.95	0.95	6.6	0.77	0.77	0.5	0.4	1.2
108	12	96.39	0.000096385	0.95	0.95	6.6	0.77	1.44	0.3	0.7	2.1
109	12	144.58	0.000144578	0.95	0.95	6.6	0.77	2.11	0.3	0.7	2.8
110	23	240.96	0.000240963	0	0	0	2.77	2.77	0.3	1.3	4.1
111	12	44.75	0.000044745	0.95	0.95	7.33	0.81	0.81	0.3	0.7	1.5
112	12	44.75	0.000044745	0.95	0.95	7.33	0.81	0.81	0.3	0.7	1.5
113	12	89.49	0.00008949	0.95	0.95	7.33	0.81	1.48	0.3	0.7	2.1
114	12	178.98	0.00017898	0.95	0.95	6.61	0.77	2.15	0.3	0.7	2.8
115	1	178.98	0.00017898	0.95	0.95	0	0.00	2.81	0.3	0.1	2.9
116	8	34.67	0.000034668	0.95	0.95	5.9	0.73	0.73	0.3	0.4	1.2
117	10	78.00	0.000078003	0.95	0.95	5.9	1.18	1.18	0.3	0.6	1.7
118	2	187.65	0.000187647	0.95	0.95	5.9	0.73	2.87	0.3	0.1	3.0
119	10	230.98	0.000230982	0.95	0.95	5.9	0.73	2.98	0.3	0.6	3.5
120	10	274.32	0.000274317	0.95	0.95	5.9	0.73	3.53	0.3	0.6	4.1
121	1	352.32	0.00035232	0.95	0.95	0	4.09	4.09	0.3	0.1	4.1
122	9	381.14	0.000381138	0.95	0.95	5.76	0.73	4.15	0.3	0.5	4.6
123	9	409.96	0.000409955	0.95	0.95	5.76	0.73	4.65	0.3	0.5	5.1
124	9	28.82	2.88175E-05	0.95	0.95	5.76	0.73	0.73	0.3	0.5	1.2
125	9	438.77	0.000438773	0.95	0.95	5.76	0.73	5.15	0.3	0.5	5.6
126	12	467.59	0.00046759	0.95	0.95	0	0.00	5.65	0.3	0.7	6.3
127	24	159.43	0.000159425	0.95	0.95	14.11	1.10	1.10	0.3	1.3	2.4
128	24	627.02	0.000627015	0.95	0.95	14.11	1.10	6.31	0.3	1.3	7.6
129	24	1027.40	0.001027403	0.95	0.95	14.11	1.10	7.65	0.3	1.3	9.0
130	24	318.85	0.00031885	0.95	0.95	14.11	1.10	2.44	0.3	1.3	3.8
131	45	1346.25	0.001346253	0.95	0.95	0	9.0	9.0	0.3	2.5	11.5
132	100	1346.25	0.001346253	0.95	0.91	0	11.48	11.48	0.77	2.2	13.7

*Tabel 4.71 Rekap Tc Saluran outflow 1 pada FTK ITS*

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc(MENIT)
37a	9	101.69	0.0001017	0.95	0.95	5.7	0.72	0.72	0.4	0.38	1.10
37b	9	203.38	0.0002034	0.95	0.95	5.7	0.72	1.10	0.4	0.38	1.47
37c	9	101.69	0.0001017	0.95	0.95	5.7	0.72	1.47	0.4	0.38	1.85
37	44	419.745	0.0004197	0.95	0.95	6.55	1.85	1.85	0.4	1.83	3.68
36	8	41.75	4.175E-05	0.95	0.95	7.76	0.83	0.83	0.4	0.33	1.17
36a	12	590.151	0.0005902	0.95	0.95	7.76	3.68	3.68	0.4	0.50	4.18
38	53	419.745	0.0004197	0.95	0.95	6.55	0.77	0.77	0.4	2.21	2.98
39	35	1524.52	0.0015245	0.95	0.95	7.76	4.18	4.18	0.4	1.46	5.64
40	12.5	1524.52	0.0015245	0.95	0.95	0	5.64	5.64	0.4	0.52	6.16
41	15	123.66	0.0001237	0.95	0.95	5.69	0.72	0.72	0.4	0.63	1.35
42	12	123.66	0.0001237	0.95	0.95	7.76	0.83	1.35	0.4	0.50	1.85
43	15	123.66	0.0001237	0.95	0.95	5.69	0.72	0.72	0.4	0.63	1.35
44	35	247.32	0.0002473	0.95	0.95	7.76	0.83	1.85	0.4	1.46	3.30
21	53	110.96	0.000111	0.95	0.95	6.86	0.79	0.79	0.4	2.21	3.00
22	53	110.96	0.000111	0.95	0.95	6.86	0.79	0.79	0.4	2.21	3.00
23	12	110.96	0.000111	0.95	0.95	6.86	0.79	0.79	0.4	0.50	1.29
24	28	221.92	0.0002219	0.95	0	0	1.29	1.29	0.4	1.17	2.45
25	53	385.62	0.0003856	0.95	0.95	7.62	0.83	0.83	0.4	2.21	3.04
26	12	607.54	0.0006075	0.95	0	0	3.04	3.04	0.4	0.50	3.54
27	53	385.62	0.0003856	0.95	0.95	7.62	0.83	0.83	0.4	2.21	3.04
28	12	993.16	0.0009932	0.95	0	0	3.54	3.54	0.4	0.50	4.04
29	8.5	1020.9	0.0010209	0.95	0.95	4.83	0.67	4.04	0.4	0.35	4.39
32	12	1020.9	0.0010209	0.95	0.95	4.83	0.67	4.39	0.4	0.50	4.89
30	8.5	55.48	5.548E-05	0.95	0.95	4.83	0.67	0.67	0.4	0.35	1.02
31	12	55.48	5.548E-05	0.95	0.95	4.83	0.67	1.02	0.4	0.50	1.52
33	17	55.48	5.548E-05	0.95	0.95	4.83	0.67	1.52	0.4	0.71	2.23
34	98	1076.38	0.0010764	0.95	0.95	0	4.89	4.89	0.4	4.08	8.97
45	482	1076.38	0.001076	0.95	0.93	0.00	8.97	27.76	1.065	7.54	35.31

*Tabel 4.72 Rekap Tc Saluran outflow 2 pada FTK ITS*

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT )
58	60	499.63	0.0005	0.95	0.95	7.83	0.84	0.84	0.4	2.50	3.34
59	14	999.25	0.000999	0.95	0.95	7.83	0.84	0.84	0.4	0.58	1.42
60	55	0	0	0.95	0.95	7.23	0.81	0.81	0.4	2.29	3.10
61	87	999.25	0.000999	0.95	0.95	7.23	0.81	1.42	0.4	3.63	5.05
62	15	0	0	0.95	0.95	7.5	0.82	0.82	0.4	0.63	1.45
63	16	0	0	0.95	0.95	0	5.05	5.05	0.4	0.67	5.71
64	15	0	0	0.95	0.95	7.5	0.82	0.82	0.4	0.63	1.45
65	20	0	0	0.95	0.95	7.23	0.81	5.71	0.4	0.83	6.55
66	15	0	0	0.95	0	0	6.55	6.55	0.4	0.63	7.17
67	13	999.25	0.000999	0.95	0.95	7.62	0.83	7.17	0.4	0.54	7.71
68	42	1112.2	0.001112	0.95	0	2.49	0.49	7.71	0.4	1.75	9.46
69	42	112.97	0.000113	0.95	0.95	2.49	0.49	0.49	0.4	1.75	2.24
70	30	240.07	0.00024	0.95	0.95	7.38	0.81	0.81	0.4	1.25	2.06
71	12	240.07	0.00024	0.95	0.95	0	2.06	2.06	0.4	0.50	2.56
72	30	240.07	0.00024	0.95	0.95	7.38	0.81	0.81	0.4	1.25	2.06
73	28	480.14	0.00048	0.95	0.95	0	2.56	2.56	0.4	1.17	3.73
74	15	480.14	0.00048	0.95	0.95	0	2.56	2.56	0.4	0.63	3.19
75	38	323.67	0.000324	0.95	0.95	7.33	0.81	0.81	0.4	1.58	2.40
76	13	803.81	0.000804	0.95	0.95	0	3.19	3.19	0.4	0.54	3.73
77	38	323.67	0.000324	0.95	0.95	7.33	3.19	3.19	0.4	1.58	4.77
78	12	1127.5	0.001127	0.95	0.95	0	4.77	4.77	0.4	0.50	5.27
79	41	349.36	0.000349	0.95	0.95	7.06	0.80	0.80	0.4	1.71	2.51
80	9.5	1476.8	0.001477	0.95	0.95	7.06	0.80	5.27	0.4	0.40	5.67
81	14	1476.8	0.001477	0.95	0.95	0	5.67	5.67	0.4	0.58	6.25
82	41	349.36	0.000349	0.95	0.95	7.06	0.80	0.80	0.4	1.71	2.51
83	24	1826.2	0.001826	0.95	0.95	0	6.25	6.25	0.4	1.00	7.25
84	4	1826.2	0.001826	0.95	0.95	0	7.25	7.25	0.4	0.17	7.42
85	3	1826.2	0.001826	0.95	0.95	0	9.46	9.46	0.4	0.13	9.59
86	8	1826.2	0.001826	0.95	0.95	0	9.59	9.59	0.4	0.33	9.92
87	23	1947.7	0.001948	0.95	0.95	6.3	0.76	9.92	0.4	0.96	10.88
88	9	1947.7	0.001948	0.95	0.95	0	10.88	10.88	0.4	0.38	11.25
89	23	121.46	0.000121	0.95	0.95	6.3	0.76	0.76	0.4	0.96	1.71
90	348	2069.1	0.002069	0.95	0.941	0	11.25	11.25	1.065	5.45	16.70

*Tabel 4.73 Rekap Tc Saluran outflow 3 pada FTK ITS*

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
46	12	159.43	0.00016	0.95	0.95	8.2	0.86	0.86	0.4	0.50	1.36
47	12	159.43	0.00016	0.95	0.95	8.2	0.86	1.36	0.4	0.50	1.86
48	21	782.55	0.00078	0.95	0.95	6.72	1.86	1.86	0.4	0.88	2.73
49	14	782.55	0.00078	0.95	0.95	0	2.73	2.73	0.4	0.58	3.31
50	36	1338.98	0.00134	0.95	0.95	6.72	0.78	3.31	0.4	1.50	4.81
51	29	370.952	0.00037	0.95	0.95	6.72	0.78	0.78	0.4	1.21	1.99
52	10	1709.93	0.00171	0.95	0.95	0	4.81	4.81	0.4	0.42	5.23
53	52	2093.77	0.00209	0.95	0.95	7.73	0.83	5.23	0.4	2.17	7.40
54	52	383.84	0.00038	0.95	0.95	7.73	0.83	0.83	0.4	2.17	3.00
55	6.5	383.84	0.00038	0.95	0.95	0	0.00	3.00	0.4	0.27	3.27
56	6.5	2093.77	0.00209	0.95	0.95	0	0.00	7.40	0.4	0.27	7.67
57	374	2477.61	0.00248	0.95	0.94	0	7.67	16.70	1.065009351	5.85	22.55

*Tabel 4.74 Rekap Tc Saluran outflow 4 pada FTK ITS*

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
1	56	355.80	0.000355795	0.95	0.95	7.47	0.82	0.82	0.4	2.33	3.15
2	56	355.80	0.000355795	0.95	0.95	7.47	3.15	3.15	0.4	2.33	5.49
3	14	355.80	0.000355795	0.95	0.95	0	5.49	5.49	0.4	0.58	6.07
4	50	711.59	0.00071159	0.95	0.95	0	6.07	6.07	0.4	2.08	8.15
5	52	323.67	0.00032367	0.95	0.95	8.37	0.86	0.86	0.4	2.17	3.03
6	52	323.67	0.00032367	0.95	0.95	8.37	0.86	0.86	0.4	2.17	3.03
7	8	323.67	0.00032367	0.95	0.95	0	3.03	3.03	0.4	0.33	3.36
8	8	1035.26	0.00103526	0.95	0.95	0	8.15	8.15	0.4	0.33	8.49
9	90	1358.93	0.00135893	0.95	0.95	0	8.49	8.49	0.4	3.75	12.24
10	14	118.96	0.00011896	0.95	0.95	6.83	0.79	0.79	0.4	0.58	1.37
11	14	1596.85	0.00159685	0.95	0	6.83	0.79	12.24	0.4	0.58	12.82
11a	6	118.96	0.00011896	0.95	0.95	0	1.37	1.37	0.4	0.25	1.62
12	8	373.51	0.000373508	0.95	0.95	5.83	0.73	0.73	0.4	0.33	1.06
13	52	2063.74	0.002063735	0.95	0.95	5.83	0.73	12.82	0.4	2.17	14.99
14	12	2063.74	0.002063735	0.95	0.95	0	14.99	14.99	0.4	0.50	15.49
15	8	8.36	0.000008356	0.95	0.95	3.03	0.54	0.54	0.4	0.33	0.87
16	52	280.00	0.00028	0.95	0.95	5.38	0.70	0.70	0.4	2.17	2.87
17	12	280.00	0.00028	0.95	0.95	0	2.87	2.87	0.4	0.50	3.37
18	52	560.00	0.00056	0.95	0.95	5.38	0.70	3.37	0.4	2.17	5.54
19	52	568.36	0.000568356	0.95	0.95	5.83	0.73	5.54	0.4	2.17	7.70
20	333	2632.09	0.002632091	0.95	0.94	0	15.49	22.55	1.065	5.21	27.76



*Tabel 4.75 Rekap Tc Saluran outflow 1 pada Robotika ITS*

Sal	Panjang (m)	Atap (m2)	Atap (km2)	Catap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
26	28	168.57	0.0001686	0.95	0.95	12.9	1.06	1.06	0.8	0.58	1.64
27	19	337.14	0.0003371	0.95	0.95	12.9	1.06	1.64	0.8	0.40	2.04
28	28	505.70	0.0005057	0.95	0.95	12.9	1.06	2.04	0.8	0.58	2.62
29	23	392.44	0.0003924	0.95	0.95	14.38	1.11	1.11	0.8	0.48	1.59
30	26	1290.59	0.0012906	0.95	0.95	0	2.62	2.62	0.8	0.54	3.16
31	20	1290.59	0.0012906	0.95	0.95	0	3.16	3.16	0.8	0.42	3.58
21	6	784.89	0.0007849	0.95	0.95	14.38	1.11	1.11	0.8	0.13	1.24
32	15	1290.59	0.0012906	0.95	0.95	0	3.58	3.58	0.8	0.31	3.89
33	18	1416.88	0.0014169	0.95	0.95	7.08	0.80	3.89	0.8	0.38	4.27
34	18	126.29	0.0001263	0.95	0.95	7.08	0.80	0.80	0.8	0.38	1.17
35	13	1416.88	0.0014169	0.95	0.95	0	4.27	4.27	0.8	0.27	4.54
36	13	1416.88	0.0014169	0.95	0.95	0	4.54	4.54	0.8	0.27	4.81
38	31	1626.69	0.0016267	0.95	0.95	7.14	4.81	4.81	0.8	0.65	5.45
37	31	209.82	0.0002098	0.95	0.95	7.14	0.80	0.80	0.8	0.65	1.45
39	13	1626.69	0.0016267	0.95	0.95	0	5.45	5.45	0.8	0.27	5.72
40	22	1626.69	0.0016267	0.95	0.95	0	5.72	5.72	0.8	0.46	6.18
41	57	1626.69	0.0016267	0.95	0.95	0	6.18	6.18	0.8	1.19	7.37
42	28	1626.69	0.0016267	0.95	0.95	0	7.37	7.37	0.8	0.58	7.95
43	22	299.73	0.0002997	0.95	0.95	18.54	1.25	1.25	0.8	0.46	1.71
44	17	599.45	0.0005995	0.95	0.95	0	1.71	1.71	0.8	0.35	2.06
45	33	1626.69	0.0016267	0.95	0.95	18.54	1.25	7.95	0.8	0.69	8.64
47	52	2394.56	0.0023946	0.95	0.95	7.42	0.82	8.64	0.8	1.08	9.72
48	32	2394.56	0.0023946	0.95	0.95	0	9.72	9.72	0.8	0.67	10.39
49	75	767.87	0.0007679	0.95	0.95	7.42	0.82	0.82	0.8	1.56	2.38
50	109	2394.56	0.0023946	0.95	0.95	0	10.39	10.39	0.8	2.27	12.66
51.00	69.00	2394.56	0.002395	0.95	0.92	0.00	12.66	12.66	0.87	1.32	13.98

*Tabel 4.76 Rekap Tc Saluran outflow 2 pada Robotika ITS*

Sal	Panjang g (m)	Atap (m2)	Atap (km2)	Catap	Cgab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (menit)
1	62	1008.16	0.00100816	0.95	0.95	13.3	1.07	1.07	0.8	1.29	2.36
2	62	1008.16	0.00100816	0.95	0.95	13.3	1.07	1.07	0.8	1.29	2.36
3	29	1008.16	0.00100816	0.95	0.95	0	2.36	2.36	0.8	0.60	2.97
4	10	2016.31	0.00201631	0.95	0.95	0	2.97	2.97	0.8	0.21	3.18
5	12	2016.31	0.00201631	0.95	0.95	0	3.18	3.18	0.8	0.25	3.43
6	50	1756.06	0.00175606	0.95	0.95	26.02	1.47	1.47	0.8	1.04	2.51
7	47	3772.37	0.00377237	0.95	0.95	0	3.43	3.43	0.8	0.98	4.41
8	50	1411.85	0.00141185	0.95	0.95	26.02	1.47	4.41	0.8	1.04	5.45
9	14	351.21	0.00035121	0.95	0.95	0	5.45	5.45	0.8	0.29	5.74
10	33	489.53	0.00048953	0.95	0.95	8.9	0.89	0.89	0.8	0.69	1.58
11	33	840.74	0.00084074	0.95	0.95	8.9	0.89	5.74	0.8	0.69	6.43
12	28	141.76	0.00014176	0.95	0.95	3.7	0.59	0.59	0.8	0.58	1.17
13	14	37.79	0.00003779	0.95	0.95	3.41	0.57	0.57	0.8	0.29	0.86
14	3.5	179.55	0.00017955	0.95	0.95	0	0.00	1.17	0.8	0.07	1.25
15	14	37.79	0.00003779	0.95	0.95	3.41	0.57	0.57	0.8	0.29	0.86
16	3.5	217.34	0.00021734	0.95	0.95	0	1.25	1.25	0.8	0.07	1.32
17	28	141.76	0.00014176	0.95	0.95	3.7	0.59	0.59	0.8	0.58	1.17
18	5	359.09	0.00035909	0.95	0.95	0	1.32	1.32	0.8	0.10	1.42
19	15	848.62	0.00084862	0.95	0.95	8.9	0.89	1.58	0.8	0.31	1.89
20	20	848.62	0.00084862	0.95	0.95	0	1.89	1.89	0.8	0.42	2.31
21	6	1689.35	0.00168935	0.95	0.95	0	6.43	6.43	0.8	0.13	6.55
22	18	215.74	0.00021574	0.95	0.95	1	0.32	0.32	0.8	0.38	0.70
23	20	1905.09	0.00190509	0.95	0.95	10.2	0.95	6.55	0.8	0.42	6.97
24	18	215.74	0.00021574	0.95	0.95	1	0.32	0.32	0.8	0.38	0.70
25	193.00	2120.82	0.0021208	0.95	0.92	0.00	6.97	6.97	0.87	3.70	16.36

**Tabel 4.77 Rekap Tc Saluran outflow 1 pada  
Perpustakaan ITS**

Sal	Panjang (m)	Atap (m <sup>2</sup> )	Atap (km <sup>2</sup> )	Catap	Cgab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc(MENIT)
1	46	314.56	0.000315	0.95	0.95	6.95	0.79	0.79	0.8	0.96	1.75
3	13	314.56	0.000315	0.95	0.95	0	1.75	1.75	0.8	0.27	2.02
4	39	314.56	0.000315	0.95	0.95	0	2.02	2.02	0.8	0.81	2.83
5	46	320.03	0.00032	0.95	0.95	7.49	0.82	0.82	0.8	0.96	1.78
6	13	314.56	0.000315	0.95	0.95	0	2.83	2.83	0.8	0.27	3.10
7	46	320.03	0.00032	0.95	0.95	7.49	0.82	3.10	0.8	0.96	4.06
7a	39	320.03	0.00032	0.95	0.95	0	4.06	4.06	0.8	0.81	4.88
8	4	320.03	0.00032	0.95	0.95	0	4.88	4.88	0.8	0.08	4.96
10	30	229.14	0.000229	0.95	0.95	7.03	0.80	0.80	0.8	0.63	1.42
9	14	229.14	0.000229	0.95	0.95	0	1.42	1.42	0.8	0.29	1.71
11	30	320.03	0.00032	0.95	0.95	0	4.96	4.96	0.8	0.63	5.58
12	5	320.03	0.00032	0.95	0.95	0	5.58	5.58	0.8	0.10	5.69
13	16	112.27	0.000112	0.95	0.95	7.77	0.83	0.83	0.8	0.33	1.17
14	16	224.54	0.000225	0.95	0.95	7.77	0.83	1.17	0.8	0.33	1.50
15	13	320.03	0.00032	0.95	0.95	0	5.69	5.69	0.8	0.27	5.96
16	16	123.33	0.000123	0.95	0.95	7.29	0.81	0.81	0.8	0.33	1.14
17	12	123.33	0.000123	0.95	0.95	7.29	1.14	1.14	0.8	0.25	1.39
18	16	123.33	0.000123	0.95	0.95	0	1.39	1.39	0.8	0.33	1.73
20	30	507.07	0.000507	0.95	0.95	6.52	0.77	6.31	0.8	0.63	6.94
19	17	320.03	0.00032	0.95	0.95	0	5.96	5.96	0.8	0.35	6.31
21	30	187.04	0.000187	0.95	0.95	6.52	0.77	0.77	0.8	0.63	1.39
22	13	507.07	0.000507	0.95	0.95	0	6.94	6.94	0.8	0.27	7.21
23	29	507.07	0.000507	0.95	0.95	0	7.21	7.21	0.8	0.60	7.81
24	29	199.21	0.000199	0.95	0.95	6.99	0.79	0.79	0.8	0.60	1.40
25	15	507.07	0.000507	0.95	0.95	0	1.40	7.81	0.8	0.31	8.13
26	29	199.21	0.000199	0.95	0.95	6.99	0.79	0.79	0.8	0.60	1.40
27	6	507.07	0.000507	0.95	0.95	0	8.13	8.13	0.8	0.13	8.25
28	21	225.8	0.000226	0.95	0.95	9.58	0.92	0.92	0.8	0.44	1.36
29	14	225.8	0.000226	0.95	0.95	0	1.36	1.36	0.8	0.29	1.65
30	21	732.87	0.000733	0.95	0.95	9.58	8.25	8.25	0.8	0.44	8.69
31	36	732.87	0.000733	0.95	0.95	0	8.69	8.69	0.8	0.75	9.44
32	63	732.87	0.000733	0.95	0.95	0	9.44	9.44	0.8	1.31	10.75
32a	2	732.87	0.000733	0.95	0.95	0	10.75	10.75	0.8	0.04	10.79

### Lanjutan rekap Tc Saluran outflow 1 pada Perpustakaan ITS

33	48	377.32	0.000377	0.95	0.95	7.59	0.83	0.83	0.8	1.00	1.83
34	4	732.87	0.000733	0.95	0.95	0	10.79	10.79	0.8	0.08	10.88
35	48	377.32	0.000377	0.95	0.95	7.59	0.83	0.83	0.8	1.00	1.83
36	4	732.87	0.000733	0.95	0.95	0	10.88	10.88	0.8	0.08	10.96
37	4	732.87	0.000733	0.95	0.95	0	10.96	10.96	0.8	0.08	11.04
38	48	377.32	0.000377	0.95	0.95	7.59	0.83	0.83	0.8	1.00	1.83
39	4	732.87	0.000733	0.95	0.95	0	11.04	11.04	0.8	0.08	11.13
46	36	274.85	0.000275	0.95	0.95	8.5	0.87	0.87	0.8	0.75	1.62
44	24	550.01	0.00055	0.95	0.95	7.47	0.82	1.62	0.8	0.50	2.12
43	12	550.01	0.00055	0.95	0.95	0	2.12	2.12	0.8	0.25	2.37
45	35	825.16	0.000825	0.95	0.95	7.47	0.82	2.37	0.8	0.73	3.10
49	44	928.54	0.000929	0.95	0.95	2.45	0.49	3.10	0.8	0.92	4.02
47	49	274.85	0.000275	0.95	0.95	8.5	0.87	0.87	0.8	1.02	1.89
48	44	378.23	0.000378	0.95	0.95	2.45	0.49	0.49	0.8	0.92	1.40
50	44	114.43	0.000114	0.95	0.95	2.23	0.47	0.47	0.8	0.92	1.38
52a	4	928.54	0.000929	0.95	0.95	0	4.02	4.02	0.8	0.08	4.10
51	75	103.38	0.000103	0.95	0.95	2.23	0.47	0.47	0.8	1.56	2.03
52	27	928.54	0.000929	0.95	0.95	2.23	0.47	4.10	0.8	0.56	4.66
40	48	1305.9	0.001306	0.95	0.95	2.23	0.47	4.66	0.8	1.00	5.66
41	20	732.87	0.000733	0.95	0.95	0	11.13	11.13	0.8	0.42	11.54
42	45	732.87	0.000733	0.95	0.83	0	11.54	11.54	1.065	0.70	12.25

*Tabel 4.78 Rekap Tc Saluran outflow 2 pada  
Perpustakaan ITS*

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
53	27	188.645	0.000188645	0.95	0.95	8.65	0.88	0.88	0.8	0.56	1.44
54	14	188.645	0.000188645	0.95	0.95	8.65	1.44	1.44	0.8	0.29	1.73
55	36	566.45	0.00056645	0.95	0.95	8.23	0.86	1.73	0.8	0.75	2.48
56	36	377.805	0.000377805	0.95	0.95	8.23	0.86	0.86	0.8	0.75	1.61
57	15	566.45	0.00056645	0.95	0.95	0	2.48	2.48	0.8	0.31	2.79
58	41	944.255	0.000944255	0.95	0.95	0	0.05	2.79	0.8	0.85	3.65
59	30	1079.87	0.00107987	0.95	0.95	6.36	0.76	3.65	0.8	0.63	4.27
60	8	1079.87	0.00107987	0.95	0.95	0	4.27	4.27	0.8	0.17	4.44
61	35	1254.44	0.00125444	0.95	0.95	5.43	0.71	4.44	0.8	0.73	5.17
62	35	174.57	0.00017457	0.95	0.95	5.43	0.71	0.71	0.8	0.73	1.43
63	9	165.29	0.00016529	0.95	0.95	5.17	0.69	0.69	0.8	0.19	0.88
64	30	1585.02	0.00158502	0.95	0.95	5.17	0.69	5.17	0.8	0.63	5.79
65	30	165.29	0.00016529	0.95	0.95	5.17	0.69	0.69	0.8	0.63	1.31
66	9	1585.02	0.00158502	0.95	0.95	0	5.79	5.79	0.8	0.19	5.98
67	9	1585.02	0.00158502	0.95	0.95	0	5.98	5.98	0.8	0.19	6.17
68	8	1585.02	0.00158502	0.95	0.95	0	6.17	6.17	0.8	0.17	6.34
69	7	1585.02	0.00158502	0.95	0.95	0	6.34	6.34	0.8	0.15	6.48
70	9	1682.965	0.001682965	0.95	0.95	4.42	0.64	6.48	0.8	0.19	6.67
71	24	841.4825	0.000841483	0.95	0.95	0	6.67	6.67	0.8	0.50	7.17
72	7	926.3975	0.000926398	0.95	0.95	0	7.17	7.17	0.8	0.15	7.31
73	7	1141.778	0.001141778	0.95	0.95	3.54	0.58	7.31	0.8	0.15	7.46
74	62	1271.743	0.001271743	0.95	0.95	10.58	0.96	7.46	0.8	1.29	8.75
75	23	107.69	0.00010769	0.95	0.95	3.54	0.58	0.58	0.8	0.48	1.06

### Lanjutan rekap Tc Saluran outflow 2 pada Perpustakaan ITS

Sal	Panjang (m)	Atap (m2)	Atap (km2)	C atap	C gab	Lebar Miring	To	To pakai (menit)	V (m/s)	Tf	Tc (MENIT)
76	36	107.69	0.00010769	0.95	0.95	0	1.06	1.06	0.8	0.75	1.81
77	9	1379.433	0.001379433	0.95	0.95	0	8.75	8.75	0.8	0.19	8.94
78	10	193.23	0.00019323	0.95	0.95	8.01	0.85	0.85	0.8	0.21	1.05
79	36	193.23	0.00019323	0.95	0.95	0	1.05	1.05	0.8	0.75	1.80
80	10	1572.663	0.001572663	0.95	0.95	8.01	0.85	8.94	0.8	0.21	9.15
81	36	1765.893	0.001765893	0.95	0.95	0	9.15	9.15	0.8	0.75	9.90
82	37	1765.893	0.001765893	0.95	0.95	0	9.90	9.90	0.8	0.77	10.67
83	81	339.3175	0.000339318	0.95	0.95	22.1	1.36	1.36	0.8	1.69	3.05
84	33	678.635	0.000678635	0.95	0.95	22.1	1.36	3.05	0.8	0.69	3.73
85	31	2783.845	0.002783845	0.95	0.95	22.1	1.36	10.67	0.8	0.65	11.31
86	33	1055.553	0.001055553	0.95	0.95	22.1	1.36	2.53	0.8	0.69	3.21
87	31	210.69	0.00021069	0.95	0.95	5.9	0.73	0.73	0.8	0.65	1.38
88	22	210.69	0.00021069	0.95	0.95	5.9	0.73	0.73	0.8	0.46	1.19
89	22	716.235	0.000716235	0.95	0.95	8	0.85	1.19	0.8	0.46	1.65
90	31	294.855	0.000294855	0.95	0.95	5.9	0.73	0.73	0.8	0.65	1.38
91	31	716.235	0.000716235	0.95	0.95	0	1.65	1.65	0.8	0.65	2.30
92	11	716.235	0.000716235	0.95	0.95	0	2.30	2.30	0.8	0.23	2.53
93	10	3839.398	0.003839398	0.95	0.95	0	11.31	11.31	0.8	0.21	11.52
94	134	3839.40	0.003839398	0.95	0.905	0	11.52	12.25	1.065	2.10	14.34

#### 4.6.5.3 Intensitas Hujan

Nilai intensitas hujan suatu wilayah dapat ditentukan berdasarkan data curah hujan dan durasi (lama hujan) tertentu. Data tersebut dapat diperoleh dari stasiun pencatat hujan yang mampu mencatat tinggi hujan setiap waktunya. Perhitungan intensitas hujan dengan cara monobe dipakai untuk menghitung insitas hujan harian.

$$I = \frac{R_{24}}{24} \left( \frac{24}{t_c} \right)^{2/3}$$

$$I = \frac{136.675}{24} \times \left( \frac{24}{7.39/60} \right)^{2/3} \quad (4.21)$$

$$I = 175.795 \text{ mm/jam}$$

Berikut adalah rekap nilai intensitas saluran outflow pada 4 lokasi. Dapat dilihat pada Tabel 4.79 sampai 4.89.

**Tabel 4.79 Intensitas Saluran Outflow 1 FTSLK (Taman Alumni ITS)**

To pakai (menit)	V (m/s)	Tf	Tc(menit)	Tc(jam)	I(mm/jam)
11.45	0.76	1.56	13.01	0.217	133.51

**Tabel 4.80 Intensitas Saluran Outflow 2 FTSLK (Taman Alumni ITS)**

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I(mm/jam)
22.50	0.77	0.26	22.76	0.38	91.67

**Tabel 4.81 Intensitas Saluran Outflow 3 FTSLK (Taman Alumni ITS)**

To pakai (menit)	V (m/s)	Tf	Tc(menit)	Tc(jam)	I (mm/jam)
11.48	0.7	2.2	13.70	0.23	129.13

**Tabel 4.82 Intensitas Saluran Outflow 1 FTK ITS**

To pakai (menit)	V (m/s)	Tf	Tc(menit)	Tc(jam)	I(mm/jam)
27.76	1.065	7.54	35.31	0.59	68.31

*Tabel 4.83 Intensitas Saluran Outflow 2 FTK ITS*

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I (mm/jam)
11.25	1.06	5.45	16.70	0.278	112.81

*Tabel 4.84 Intensitas Saluran Outflow 3 FTK ITS*

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I (mm/jam)
16.7	1.06	5.85	22.55	0.375	92.24

*Tabel 4.85 Intensitas Saluran Outflow 4 FTK ITS*

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I (mm/jam)
15.48	0.4	5.21	27.76	0.46	80.25

*Tabel 4.86 Outflow 1 Robotika ITS*

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I (mm/jam)
12.66	0.87	1.32	13.98	0.23	127.06

*Tabel 4.87 Intensitas Saluran Outflow 2 Robotika ITS*

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I (mm/jam)
6.97	0.87	3.7	10.67	0.18	152.33

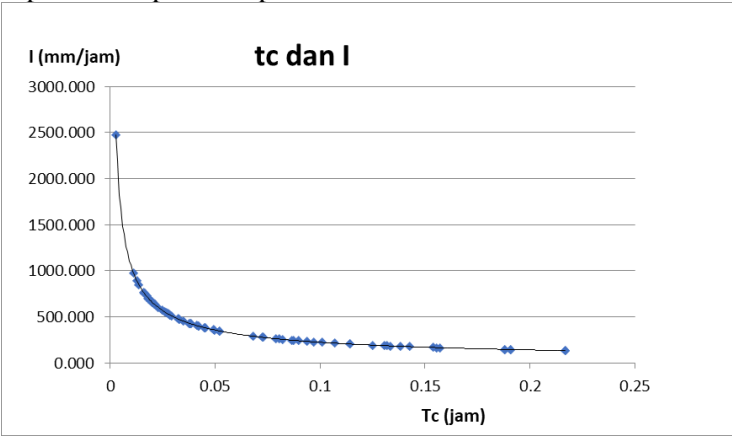
*Tabel 4.88 Intensitas Saluran Outflow 1 Perpustakaan ITS*

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I (mm/jam)
11.54	1.065	0.7	12.25	0.2	138.8

*Tabel 4.89 Intensitas Saluran Outflow 2 Perpustakaan ITS*

To pakai (menit)	V (m/s)	Tf	Tc (menit)	Tc(jam)	I (mm/jam)
12.25	1.07	2.1	14.34	0.239	124.9

Selain tabel diatas, berikut merupakan Gambar 4.20 yaitu grafik hubungan antara intensitas dengan waktu konsentrasi masing-masing saluran pipa pada lokasi FTSLK (Taman Alumni ITS) khususnya untuk saluran outflow 1. Untuk saluran pada lokasi lainnya,dapat dilihat pada lampiran.



*Gambar 4.20 Hubungan Intensitas dan Tc*



#### 4.6.5.4 Perhitungan Debit Hidrologi

Perhitungan debit hidrologi dengan menggunakan rumus yaitu.

$$Q = 1/3.6 \times C \times I \times A \quad (4.22)$$

$$C \text{ atap} = 0.95$$

$$C \text{ lahan} = 0.75$$

$$A \text{ atap} = 0.0021 \text{ km}^2$$

$$A \text{ lahan} = 0.0003 \text{ km}^2$$

$$C \text{ gabungan} = ((A \text{ atap} \times C \text{ atap}) + (A \text{ lahan} \times C \text{ lahan})) / (A \text{ atap} + A \text{ lahan})$$

$$C \text{ gabungan} = 0.938$$

$$I = 133.351 \text{ mm/jam}$$

$$Agab = 0.00519 \text{ km}^2$$

$$Q \text{ hidrologi} = 0.175 \text{ m}^3/\text{s}$$

Debit hidrologi pada saluran outflow adalah sebagai berikut. Dapat dilihat pada Tabel 4.90.

**Tabel 4.90 Hasil Perhitungan Debit Hidrologi**

Q hidrologi(m <sup>3</sup> /s)	Qhidraulika (m <sup>3</sup> /s)	Cek	Lokasi
0.175	0.491	ok	Taman Alumni ITS 1
0.13	0.491	ok	Taman Alumni ITS 2
0.05	0.491	ok	Taman Alumni ITS 3
0.0205	0.681	ok	FTK ITS 1
0.0621	0.681	ok	FTK ITS 2
0.0604	0.681	ok	FTK ITS 3
0.055	0.681	ok	FTK ITS 4
0.09	0.56	ok	Robotika ITS 1
0.10	0.56	ok	Robotika ITS 2
0.057	0.681	ok	Perpustakaan ITS 1
0.15	0.681	ok	Perpustakaan ITS 2

#### 4.6.5.5 Perhitungan Debit Hidrolika untuk Saluran Outflow

Saluran outflow digunakan untuk mengatasi adanya luapan air atau banjir. Luapan diakibatkan elevasi air melebihi tinggi air yang direncanakan. Untuk lokasi FTSLK (Taman Alumni ITS) direncanakan saluran outflow dengan menggunakan u-ditch. Saluran yang ditinjau adalah saluran terakhir yang paling panjang dari antara saluran/ pipa inflow lainnya. Pipa inflow tersebut adalah saluran 70.

Rumus yang dipakai adalah sebagai berikut.

$$Q = (1/n) \times R^{2/3} \times I^{1/2} \times A \quad (4.23)$$

$$Q = V \times A$$

$$R^{2/3} = \frac{A}{P}$$

Dicoba menggunakan ukuran u-ditch

$$B = 0.8 \text{ m}$$

$$H = 0.8 \text{ m}$$

$$W \text{ jagaan} = 0.2 \text{ m}$$

$$A = b \times h = 0.64 \text{ m}^2$$

$$P = (b + 2h) = 2.4 \text{ meter}$$

$$R = (A/P) = 0.267$$

$$n = 0.017$$

$$I = 0.002$$

$$Q = 0.49 \text{ m}^3/\text{s}$$

$$V = 0.767 \text{ m/s (oke } < 1.5 \text{ m/s)}$$

$$\text{Cek } Q \text{ hidrolika} > Q \text{ hidrologi} = 0.49 \text{ m}^3/\text{s} > 0.099 \text{ m}^3/\text{s (Ok)}$$

Untuk  $T_c$  pada lokasi FTSLK ITS (taman alumni ITS) dengan nilai sebesar 13.01 menit dengan debit  $0.175 \text{ m}^3/\text{s}$ . Hujan yang terjadi adalah selama 2 jam atau sebesar 120 menit, maka debit yang terjadi adalah  $(120/13.01) \times 0.175 = 1.617 \text{ m}^3/\text{s}$ .

Nilai volume inflow terbesar yang masuk ke tangki selama 2 jam adalah berdasarkan inflow gabungan yang masuk pada saluran 75 dengan debit inflow pada saluran 75 yaitu sebesar  $0.069 \text{ m}^3/\text{s}$ .

$$\text{Nilai debit outflow adalah } 1.617 \text{ m}^3/\text{s} - 0.09 \text{ m}^3/\text{s} = 1.5 \text{ m}^3/\text{s}$$

Untuk perencanaan hidrolika menggunakan rumus. Rumus yang dipakai adalah sebagai berikut.

$$Q = (1/n) \times R^{2/3} \times I^{1/2} \times A$$

$$Q = V \times A$$

$$R^{2/3} = \frac{A}{P}$$

Dicoba menggunakan ukuran u-ditch

$$B = 1 \text{ m}$$

$$H = 1 \text{ m}$$

$$W \text{ jagaan} = 1.2 \text{ m}$$

$$A = b \times h = 1 \text{ m}^2$$

$$P = (b + 2h) = 3 \text{ meter}$$

$$R = (A/P) = 0.33$$

$$n = 0.017$$

$$I = 0.003$$

$$Q = 1.5 \text{ m}^3/\text{s} > 1.14 \text{ m}^3/\text{s}(\text{ok})$$

$$V = 1.5 \text{ m/s} (\text{oke} \leq 1.5 \text{ m/s})$$

Untuk perhitungan saluran outflow 4 FTK ITS dan outflow 2 robotika ITS adalah sama dengan perhitungan saluran outflow pada FTSLK sebelumnya. Namun, ada perbedaan yaitu contoh untuk saluran outflow 4 FTK menerima debit dari saluran outflow 2 dan 3 . Oleh karena itu, nilai debit harus ditotalkan.

Berikut adalah rekap dimensi saluran outflow untuk 4 lokasi. Dapat dilihat pada tabel 4.91.

**Tabel 4.91** Rekapitulasi Dimensi Saluran Outflow( *U-ditch*)

Lokasi	b(m)	h(m)	Q hidrologi( m <sup>3</sup> /s)	Qhidraulika (m <sup>3</sup> /s)	Cek
Taman Alumni ITS 1	1	1	1.5	1.5	ok
Taman Alumni ITS 2	0.8	0.8	0.64	0.69	ok
Taman Alumni ITS 3	0.6	0.6	0.451	0.455	ok
FTK ITS 1	0.6	0.6	0.03	0.32	ok
FTK ITS 2	0.6	0.6	0.34	0.53	ok
FTK ITS 3	0.8	0.8	0.27	0.82	ok
FTK ITS 4	0.6	0.6	0.209	0.367	ok
Robotika ITS 1	0.8	0.8	0.56	0.6	ok
Robotika ITS 2	0.8	0.8	0.94	0.94	ok
Perpustakaan ITS 1	0.6	0.6	0.45	0.48	ok
Perpustakaan ITS 2	1	1	1.17	1.29	ok

#### 4.6.5.6 Perhitungan Saluran Outflow dengan Kapasitas Maksimum Routing Harian Untuk Waktu 1-1.5 jam

Untuk kontrol saat waktu hujan selama 1 dan 1.5 jam adalah sebagai berikut.

Volume outflow total pada FTSLK(Taman Alumni ITS) = 201000, dengan  $t = 1 \text{ jam} = 3600 \text{ detik}$ .

$$Q = V/t = 201000/ 3600 = 0.42 \text{ m}^3/\text{s}$$

Untuk  $t = 1.5 \text{ jam}$ ,  $Q = 0.28$

Maka debit dicek menghasilkan  $0.42 < 0.49$  (berasal dari debit hidraulika untuk u-ditch  $0.8 \times 0.8$ ) (ok) dan  $0.28 < 0.49$  (ok).

Kesimpulan : dipakai saluran outflow  $0.8 \times 0.8$  (U-Ditch).

Berikut adalah rekap dimensi saluran outflow yang dihitung berdasarkan outflow total dengan waktu total 1 jam beserta kontrolnya. Dapat dilihat pada tabel 4.92.

**Tabel 4.92** Rekapitulasi Dimensi Saluran Outflow  
Dengan Kapasitas Maksimum Routing Harian Selama 1 jam

B(m)	Hair (m)	V(m <sup>3</sup> )	T(sekon)	Q hidrologi (m <sup>3</sup> /s)	Q hidrolika (m <sup>3</sup> /s)	cek	Lokasi
0.8	0.8	201000	3600	0.42	0.491	ok	T.Alumni (FTSLK ITS)
0.8	0.8	288000	3600	0.61	0.68	ok	FTK ITS
0.8	0.8	230400	3600	0.48	0.5565	ok	Robotika ITS
0.8	0.8	267800	3600	0.567	0.681	ok	Perpustakaan ITS

Berikut adalah rekap dimensi outflow total dengan waktu total 1.5 jam dan kontrolnya. Dapat dilihat pada Tabel 4.93

**Tabel 4.93 Rekapitulasi Dimensi Saluran Outflow  
Dengan Kapasitas Maksimum Routing Harian Selama 1.5 jam**

B(m)	H(m)	V(m <sup>3</sup> )	T(sekon)	Q hidrologi (m <sup>3</sup> /s)	Q hidrolika (m <sup>3</sup> /s)	cek	Lokasi
0.8	0.8	200000	5400	0.28	0.491	ok	T.Alumni (FTSLK ITS)
0.6	0.6	288000	5400	0.407	0.68	ok	FTK ITS
0.8	0.8	227400	5400	0.325	0.5565	ok	Robotika ITS
0.8	0.8	267800	5400	0.379	0.681	ok	Perpustakaan ITS

#### **4.6.5.7 Perhitungan Saluran Outflow dengan Kapasitas Maksimum Routing Harian Untuk Waktu 2 jam**

Selain menggunakan hujan periode ulang serta perhitungan yang menggunakan TC, To dan TF, saluran outflow direncanakan juga dengan menggunakan kapasitas maksimum outflow yang dikeluarkan pada saat routing harian.

Kapasitas yang dikeluarkan adalah sebesar 1500 m<sup>3</sup> dikarenakan berdasarkan routing harian pada tahun 2000-2014, kapasitas 1500 m<sup>3</sup> merupakan outflow yang optimum dipakai. Maksud dari optimum adalah dengan adanya kapasitas sebesar itu, tidak terjadi kekurangan air dan luapan air selama waktu yang ditentukan. Untuk waktu yang digunakan dalam mengambil air adalah selama 2 jam untuk kapasitas 1500 m<sup>3</sup>. Hal tersebut terjadi dikarenakan hujan yang terjadi adalah rata-rata selama 2 jam. Perencanaan dimensi saluran outflow yang merupakan U-ditch menggunakan analisa hidrolika dan hidrologi sebagai berikut.

Berikut adalah perhitungan outflow.

Terdapat nilai seperti di tabel 4.94 pada lokasi FTK ITS.

*Tabel 4.94 Debit Hidrologi FTK ITS*

Volume	Waktu	Debit Hidrologi	Nd
(m3)	(Sekon)	(m3/s)	
1500	7200	0.2083	0.02

Maka untuk menentukan diameter pipa saluran outflow adalah sebagai berikut.

Penyelesaian menggunakan trial dan eror nilai diameternya.

1. Menentukan Q hidrologi

$$\begin{aligned}
 Q_{\text{hidrologi}} &= \text{Volume} / \text{Waktu} \\
 &= (1500) / (2 \times 60 \times 60) \\
 &= 0.2083 \text{ m}^3 / \text{sekon}
 \end{aligned}$$

2. Menentukan Q hidrolika

Menentukan Q hidrolika dengan menggunakan trial dan error pada saluran b dan h = 0.6 meter untuk mencapai Q hidrolika > Q hidrologi

Digunakan b dan h = 0.6 meter

$$\begin{aligned}
 A \text{ U-ditch} &= b \times h \\
 &= 0.6 \times 0.6 \text{ m} \\
 &= 0.36 \text{ m}^2
 \end{aligned}$$

$$\begin{aligned}
 P \text{ (Keliling)} &= b + 2h \\
 &= 0.6 + (2 \times 0.6) \\
 &= 1.8 \text{ meter}
 \end{aligned}$$

$$\begin{aligned}
 R &= A/P \\
 &= 0.36 / 1.8
 \end{aligned}$$

$$\begin{aligned}
 V &= 0.2 \text{ meter} \\
 &= 1/n \times R^{2/3} \times I^{1/2} \\
 &= 1/0.02 \times 0.2^{2/3} \times 0.002^{1/2} \text{ (asumsi kemiringan)} \\
 &= 0.76 \text{ m/sekon}
 \end{aligned}$$

$$\begin{aligned}
 Q \text{ hidrolika} &= A \times V \\
 &= 0.36 \text{ m}^2 \times 0.76 \text{ m/sekon} \\
 &= 0.275 \text{ m}^3/\text{s}
 \end{aligned}$$

Kesimpulan : Diperoleh  $Q \text{ hidrolika} > Q \text{ hidrologi}$  sehingga saluran pipa dapat digunakan.

Untuk hasil routing dengan outflow dapat dilihat pada lampiran.

Untuk nilai dimensi saluran outflow pada lokasi lainnya adalah sebagai berikut. Dapat dilihat pada Tabel 4.95.

**Tabel 4.95** Rekapitulasi Dimensi Saluran Outflow  
Dengan Kapasitas Routing Harian Maksimum Selama 2 jam

Lokasi	B (m)	H (m)	Vol.Outf low (m <sup>3</sup> )	Q hidrologi( m <sup>3</sup> /s)	Q hidraulika (m <sup>3</sup> /s)
Taman Alumni ITS (FTSLK)	0.4	0.4	1000	0.138	0.186
Perpustakaan ITS	0.4	0.4	1300	0.1805	0.186
Robotika ITS	0.5	0.5	1200	0.167	0.169

Selain untuk mengeluarkan air agar tidak terjadi luapan, saluran outflow direncanakan satu lagi untuk mengeluarkan kebutuhan air penyiraman tanaman. Saluran outflow ini dibantu dengan adanya pompa. Kapasitas yang dipakai adalah sebesar kebutuhan air yaitu sebesar 18 m<sup>3</sup>. Waktu yang digunakan untuk memompa air agar keluar adalah selama 1 jam dengan kapasitas 18 m<sup>3</sup>. Nilai tersebut berasal dari observasi di lapangan yang menjelaskan bahwa untuk memenuhi kapasitas tangki 6000 liter / 6 m<sup>3</sup> membutuhkan waktu 20 menit sehingga untuk 18 m<sup>3</sup> diperkirakan membutuhkan waktu selama 1 jam.



Perencanaan yang dilakukan adalah perencanaan dimensi pipa serta kapasitas pompa yang memenuhi kebutuhan.

Berikut adalah perhitungan perencanaan dimensi pipa untuk saluran outflow yang berperan mensuplai air untuk kebutuhan penyiraman tanaman.

Terdapat Tabel 4.96 dengan nilai sebagai berikut.

**Tabel 4.96** Nilai Debit Hidrologi Pada Saluran Outflow Untuk Penyiraman Tanaman

Volume (m3)	Waktu (jam)	Waktu (Detik)	Q (m3/s)	Q(m3/jam)	Q(liter/menit)
18	1	3600	0.005	18	300

Maka untuk menentukan diameter pipa saluran outflow dan kapasitas pompa adalah sebagai berikut.

Menggunakan trial dan error.

1. Menentukan Q hidrolika

Menentukan Q hidrolika dengan menggunakan trial dan error pada diameter pipa untuk mencapai  $Q_{hidrolika} > Q_{hidrologi}$

Digunakan  $D = 0.125$  meter

$$\begin{aligned} \text{A pipa} &= \frac{1}{4} \times 3.14 \times d^2 \\ &= \frac{1}{4} \times 3.14 \times 0.125 \times 0.125 \\ &= 0.0122 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} P \text{ pipa (Keliling)} &= 2 \times 3.14 \times d/2 \\ &= 2 \times 3.14 \times 0.125/2 \\ &= 0.3925 \text{ meter} \end{aligned}$$

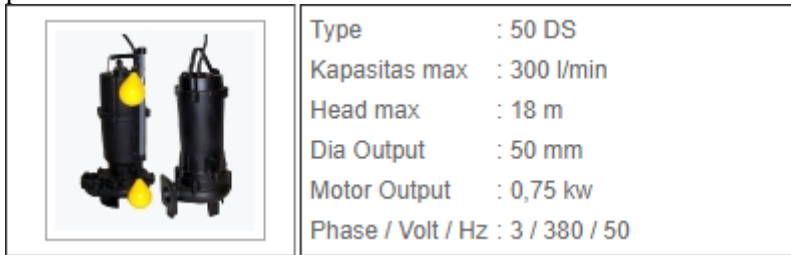
$$\begin{aligned} R &= A/P \\ &= 0.0122/0.3925 \end{aligned}$$

$$\begin{aligned} V &= 0.03125 \text{ meter} \\ &= \frac{1}{n} \times R^{2/3} \times 0.012^{1/2} \\ &= \frac{1}{0.02} \times 0.03125^{2/3} \times 0.012^{1/2} \text{ (asumsi kemiringan)} \\ &= 0.542 \text{ m/sekon} \end{aligned}$$

$$\begin{aligned}
 Q \text{ hidrolika} &= A \times V \\
 &= 0.0122 \text{ m}^2 \times 0.542 \text{ m/sekon} \\
 &= 0.0066 \text{ m}^3/\text{s}
 \end{aligned}$$

Kesimpulan : Diperoleh  $Q \text{ hidrolika} > Q \text{ hidrologi}$  sehingga saluran pipa dapat digunakan.

Perencanaan selanjutnya adalah perencanaan pompa yang dipakai yaitu menggunakan pompa dengan kapasitas  $18 \text{ m}^3/\text{jam}$  diperoleh dari  $Q = 0.005 \text{ m}^3/\text{sekon}$  yang diubah menjadi  $\text{m}^3/\text{jam}$ . Berikut brosur pompa dengan kapasitas  $18 \text{ m}^3/\text{jam}$  dapat dilihat pada Gambar 4.21.



*Gambar 4.21 Brosur Kapasitas Pompa*

#### 4.7 Perhitungan Dimensi Bak Kontrol

Perhitungan dimensi bak kontrol adalah perhitungan untuk menentukan nilai panjang dan kedalaman bak kontrol. Bak kontrol didesain pada setiap pertemuan saluran inflow dan saluran outflow yang berguna untuk mengatasi adanya banjir atau luapan. Oleh karena itu, penentuan dimensi b (panjang) bak kontrol adalah direncanakan sama dengan dimensi panjang U-ditch (saluran outflow) dan untuk kedalaman adalah menyesuaikan dengan panjang bak kontrol yang sesuai spesifikasi ukuran pasaran yang ada.

Contoh perhitungan :

Saluran inflow 90 dan 57 pada lokasi FTK ITS memiliki dimensi saluran outflow yang sudah dihitung pada perhitungan sebelumnya sebesar  $b = 0.8$  meter dan  $h = 0.8$  meter. Untuk dimensi inflow nya

adalah saluran 90 memiliki diameter 0.35 meter dan saluran 57 sebesar 0.25 meter.

Oleh karena itu, untuk dimensi bak kontrol yang direncanakan adalah memiliki nilai sebagai berikut.

$$b = 0.8 + (2 \times (0.1)) \text{ meter} = 1 \text{ meter}$$

$$h = 0.8 + (2 \times (0.1)) \text{ meter} = 1 \text{ meter}$$

Tebal cover dan jarak jagaan kanan serta kiri = 0.1 meter

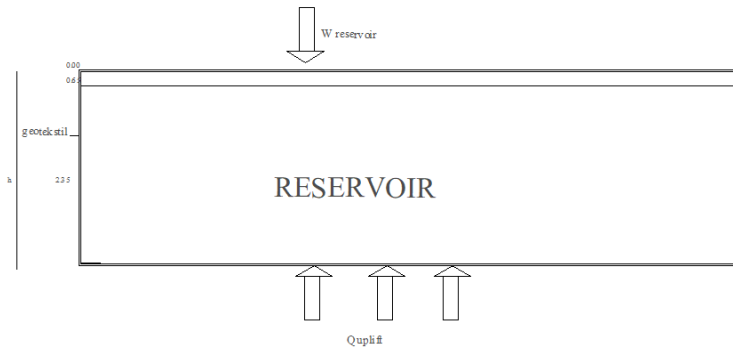
Berikut adalah rekap dimensi bak kontrol untuk 4 lokasi. Dapat dilihat pada Tabel 4.97.

***Tabel 4.97 Rekap Dimensi Bak Kontrol***

Lokasi	b saluran outflow (m)	h saluran outflow (m)	b bak kontrol (m)	h bak kontrol (m)
Taman Alumni ITS 1	1	1	1.2	1.2
Taman Alumni ITS 2	0.8	0.8	1	1
Taman Alumni ITS 3	0.6	0.6	0.8	0.8
FTK ITS 1	0.6	0.6	0.8	0.8
FTK ITS 2	0.6	0.6	0.8	0.8
FTK ITS 3	0.8	0.8	1	1
FTK ITS 4	0.6	0.6	0.8	0.8
Robotika ITS 1	0.8	0.8	1	1
Robotika ITS 2	0.8	0.8	1	1
Perpustakaan ITS 1	0.6	0.6	0.8	0.8
Perpustakaan ITS 2	1	1	1.2	1.2

#### 4.8 Perhitungan Uplift Sigma Tank

Sebelum melakukan perencanaan uplift atau gaya angkat oleh air, dilakukan dahulu pemodelan sederhana untuk mengetahui gambaran posisi Sigma Tank. Berikut adalah pemodelan Sigma Tank/reservoir dengan elevasi tanah dan muka air tanah. Dapat dilihat pada Gambar 4.23.



**Gambar 4.23** Sketsa Uplift Pada Sigma Tank

Pada gambar di atas dijelaskan bahwa nilai elevasi muka air tanah adalah 0.65 meter dan tinggi total Sigma Tank adalah 3 meter.

Setelah mengetahui model tersebut, maka uplift dapat dihitung dengan perhitungan gaya uplift. Berikut adalah contoh perhitungan uplift di lokasi robotika ITS.

Dimensi Sigma Tank yang direncanakan adalah sebagai berikut. Dapat dilihat pada Tabel 4.98.

**Tabel 4.98** Dimensi Sigma Tank Robotika ITS

B(m)	H(m)	D(m)	Luas Sigma Tank (B x H) (m <sup>2</sup> )
50	50	3	2500

b. Nilai gamma Sigma Tank, gamma air dan Z (perbedaan tinggi muka air tanah dan kedalaman sigma tank(reservoir)).

*Tabel 4.99 Nilai Berat Jenis dan Elevasi*

Gamma Polhyplerene (Sigma Tank)(t/m2)	W ST	Gamma Air(t/m2)	MAT	Z (H-Mat)	Gamma geoteks (t/m2)	Gamma Timbunan (t/m3)
1.3	9750	1	0.65	2.35	0.15	1.716

Maka dilakukan kontrol uplift terhadap Sigma Tank (Reservoir) pada 2 kondisi yaitu kondisi saat kosong dan penuh air.

Perhitungan adalah sebagai berikut.

- Menentukan W geoteks + W Sigma Tank/reservoir  
 W geoteks = Luas permukaan dinding reservoir x Berat jenis geoteks  
 $= (50 \times 3 \times 2) + (50 \times 3 \times 2) + (50 \times 50 \times 2)$   
 $\times 0.15$   
 $= 840 \text{ ton}$   
 W Sigma Tank = Luas reservoir x kedalaman x Berat jenis Sigma Tank (Polhyplerene)  
 $= 2500 \times 3 \times 1.3$   
 $= 9750 \text{ ton}$
- Menentukan W air atau Q uplift dan W air di tangki  
 W air = Luas reservoir x Z x Berat jenis air  
 $= 2500 \times (3 + 0.3 - 0.65) \times 1$   
 $= 6625 \text{ ton}$   
 W air dalam tangki = Luas reservoir x berat jenis air x kedalaman air  
 $= 2500 \times 1 \times 3$   
 $= 7500 \text{ ton}$

## 3. Menentukan W akibat tanah Timbunan

W<sub>tanah Timbunan</sub> yang berada di atas

= Berat jenis timbunan x W jagaan x Panjang Sigma Tank  
x Lebar Sigma Tank

$$= 1.716 \times 0.3 \times 50 \times 50$$

$$= 1287 \text{ ton}$$

## 4. Menentukan SF saat ada air penuh

$$SF =$$

$$\frac{(W \text{ Sigma Tank} + W \text{ geoteks} + W \text{ air dalam tangki} + W \text{ timbunan di atas})}{W \text{ Air}}$$

*W Air*

$$= (9750 + 840 + 7500 + 1287) / (6625)$$

$$= 2.92 > 1.25 \text{ (Oke)}$$

SF saat tidak ada air/ kosong

$$SF =$$

$$\frac{W \text{ sigma Tank} + W \text{ geoteks} + W \text{ timbunan di atas}}{W \text{ air}}$$

*W air*

$$= (9750 + 840 + 858) / (6625)$$

$$= 1.792 > 1.25 \text{ (ok)}$$

Dengan cara yang sama perhitungan uplift dilakukan terhadap Sigma Tank di berbagai lokasi. Berikut adalah hasil perhitungan uplift.

## 1. Lokasi Perpustakaan ITS

Lokasi terletak di lahan depan perpustakaan ITS dengan nilai dimensi adalah sebagai berikut :

$$B = 50 \text{ meter}$$

$$H = 50 \text{ meter}$$

$$D = 3 \text{ meter}$$

Saat kosong/tidak ada air

**Tabel 4 .100 Hasil Uplift Saat Kondisi Sigma Tank  
Kosong di Perpustakaan ITS**

Luas	D	Bj Polhy	W ST	Bj geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
2500	3	1.3	9750	0.15	1	0.65	3	6625	1.792	1.792>1.25	OK

Saat ada air

*Tabel 4.101 Hasil Uplift Saat Kondisi Sigma Tank Penuh di Perpustakaan ITS*

Luas	D	Bj Polhy	W ST	Bj geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
2500	3	1.3	9750	0.15	1	0.65	3	6625	2.92	2.92>1.25	OK

## 2. Lokasi Robotika ITS

Lokasi terletak di lahan sebelah robotika ITS dengan nilai dimensi adalah sebagai berikut :

B = 50 meter

H = 50 meter

D = 3 meter

Saat kosong

*Tabel 4.102 Hasil Uplift Saat Kondisi Sigma Tank Kosong di Robotika*

Luas	D	Bj Polhy	W ST	Bj geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
2500	3	1.3	9750	0.15	1	0.65	3	6625	1.792	1.792>1.25	OK

Saat ada air

*Tabel 4.103 Hasil Uplift Saat Kondisi Sigma Tank Penuh di Robotika*

Luas	D	Bj Polhy	W ST	Bj geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
2500	3	1.3	9750	0.15	1	0.65	3	6625	2.92	2.92>1.25	OK

### 3. Lokasi Taman Alumni dekat FTSLK ITS

Lokasi terletak di taman alumni depan FTSLK ITS dengan nilai dimensi adalah sebagai berikut :

B = 60 meter

H = 50 meter

D = 3 meter

Saat kosong

*Tabel 4.104 Hasil Uplift Saat Kondisi Sigma Tank Kosong di FTSLK(Taman Alumni)*

Luas	D	Bj Polhy	W ST	Bj Geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
3000	3	1.3	11700	0.15	1	0.65	3	7950	1.791	1.79>1.25	OK

Saat ada air

*Tabel 4.105 Hasil Uplift Saat Kondisi Sigma Tank Penuh di FTSLK(Taman Alumni)*

Luas	D	Bj Polhy	W ST	Bj Geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
3000	3	1.3	11700	0.15	1	0.65	3	7950	2.92	2.92>1.25	OK

### 4. Lokasi FTK ITS

Lokasi terletak di lahan sebelah FTK ITS dengan nilai dimensi adalah sebagai berikut :

B = 60 meter

H = 50 meter

D = 3 meter



Saat kosong

**Tabel 4.106** Hasil Uplift Saat Kondisi Sigma Tank Kosong di FTK

Luas	D	Bj Polhy	W ST	Bj Geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
3000	3	1.3	11700	0.15	1	0.65	3	7950	1.791	1.79>1.25	OK

Saat ada air

**Tabel 4.107** Hasil Uplift Saat Kondisi Sigma Tank Penuh di FTK

Luas	D	Bj Polhy	W ST	Bj Geoteks	Bj Air	MAT	H	Gaya Uplift	SF	Kontrol	
3000	3	1.3	11700	0.15	1	0.65	3	7950	2.92	2.92>1.25	OK

#### 4.9 Perhitungan Penghematan/Efisiensi adanya Sigma Tank dibandingkan dengan PDAM

Nilai efisiensi yang terjadi dengan adanya sigma tank adalah besar total volume outflow untuk penyiraman tanaman dari tahun 2000-2014 dikalikan dengan biaya kebutuhan penyiraman tanaman per m<sup>3</sup>. Berdasarkan wawancara dengan sarana prasarana ITS, dijelaskan bahwa biaya kebutuhan air dengan menggunakan PDAM per m<sup>3</sup> adalah Rp 7.500. Contoh perhitungannya adalah sebagai berikut.

##### 1. Taman Alumni ITS

**Tabel 4.108** Rekap Dimensi Sigma Tank di Taman Alumni ITS

b	h	d	Vol
60	50	3	9000

## 2. Perpustakaan ITS

*Tabel 4.109 Rekap Dimensi Sigma Tank di Perpustakaan ITS*

b	h	d	Vol
50	50	3	7500

## 3. FTK ITS

*Tabel 4.110 Rekap Dimensi Sigma Tank di FTK ITS*

b	h	d	Vol
60	50	3	9000

## 4. Robotika ITS

*Tabel 4.111 Rekap Dimensi Sigma Tank di Robotika ITS*

b	h	d	Vol
50	50	3	7500

Dengan nilai dimensi seperti di atas, perhitungan volume total saluran outflow untuk penyiraman tanaman adalah :

Volume outflow penyiraman tanaman tahun 2000+ 2001+ 2002  
+2003+2004+.....2014

Maka hasilnya adalah  $3240+2754+3834+4194+4284$   
 $+3528+4500+4788+4716+4716+1962+2916+3726+3060+4176$   
 $= 56394 \text{ m}^3 \times 4 \text{ lokasi} = 225.576$

Nili efisiensi/ penghematan yang dapat dilakukan adalah  $225.576$   
 $\times \text{Rp } 7.500,00 = \text{Rp } 1.691.820.000$

## **BAB 5**

### **KESIMPULAN DAN SARAN**

1. Berikut adalah total kebutuhan air untuk penyiraman tanaman dengan kebutuhan per hari adalah sebesar  $18 \text{ m}^3$  / lokasi sehingga untuk 4 lokasi dari tahun 2000-2014 sesuai jadwal penyiraman tanamannya adalah sebesar  $56628 \times 4 = 226512 \text{ m}^3$ .
2. Berikut adalah rekap ketersediaan yang dapat ditampung berdasarkan routing harian dari tahun 2000-2014

Nilai-nilai ketersediaan air pada tahun 2000-2014 pada 4 lokasi adalah sebagai berikut :

a. Taman Alumni ITS :

Kapasitas tampungan terbesar (Routing) =  $8938.73 \text{ m}^3$

Kapasitas desain tampungan Sigma Tank =  $9000 \text{ m}^3$

b. Perpustakaan ITS :

Kapasitas tampungan terbesar (Routing) =  $7486.75 \text{ m}^3$

Kapasitas desain tampungan Sigma Tank =  $7500 \text{ m}^3$

c. FTK ITS :

Kapasitas tampungan terbesar (Routing) =  $8996.23 \text{ m}^3$

Kapasitas desain tampungan Sigma Tank =  $9000 \text{ m}^3$

d. Robotika ITS :

Kapasitas tampungan terbesar (Routing) =  $7499.13 \text{ m}^3$

Kapasitas desain tampungan Sigma Tank =  $7500 \text{ m}^3$

3. Berikut adalah rekap dimensi Sigma Tank yaitu adalah sebagai berikut.

FTSLK (Taman Alumni ) dan FTK =  $60 \times 50 \times 3$

Perpustakaan dan Robotika =  $50 \times 50 \times 3$

4. -Desain tampungan atau Sigma Tank menggunakan bahan dari polyplophyrene dengan berat jenis  $1.3 \text{ ton/m}^3$ .

- Sigma Tank berada di 4 lokasi dengan luas area masing-masing adalah sebagai berikut.

Nilai-nilai luas lahan dan luas Sigma Tank adalah sebagai berikut:

- a. Taman Alumni ITS :

Luas lahan =  $5217.9 \text{ m}^2$

Luas Sigma Tank =  $3000 \text{ m}^2$

- b. Perpustakaan ITS :

Luas lahan =  $5463.72 \text{ m}^2$

Luas Sigma Tank =  $2500 \text{ m}^2$

- c. FTK ITS :

Luas lahan =  $18954.3 \text{ m}^2$

Luas Sigma Tank =  $2500 \text{ m}^2$

- d. Robotika ITS :

Luas lahan =  $28712 \text{ m}^2$

Luas Sigma Tank =  $2500 \text{ m}^2$

- Berikut adalah jumlah kebutuhan Sigma Tank berdasarkan spesifikasi yang ada.

Nilai-nilai kebutuhan Sigma Tank berdasarkan 4 lokasi adalah sebagai berikut:

- a. Taman alumni ITS dan FTK

Jumlah kebutuhan sisi panjang = 30 buah

Jumlah kebutuhan sisi lebar = 64 buah

Jumlah kebutuhan sisi kedalaman = 8 buah

- b. Perpustakaan ITS dan Robotika

Jumlah kebutuhan sisi panjang = 25 buah

Jumlah kebutuhan sisi lebar = 64 buah

Jumlah kebutuhan sisi kedalaman = 8 buah

- Sigma Tank yang dipasang adalah Sigma Tank dengan susunan rangkap 5 atau Penta. Spesifikasinya dapat dilihat pada bab 2 dan bab 4.
- Sigma Tank memiliki instalasi berupa banyak saluran inflow dan 2 saluran outflow. Nilai – nilai diameter pipa inflow dan outflow maksimum untuk penyiraman tanaman adalah sebagai berikut :
  - a. Taman Alumni ITS
    - Inflow = 0.3 meter
    - Outflow = 0.125 meter
  - b. Perpustakaan ITS
    - Inflow = 0.35 meter
    - Outflow = 0.125 meter
  - c. FTK ITS
    - Inflow = 0.25 meter
    - Outflow = 0.125 meter
  - d. Robotika ITS
    - Inflow = 0.25 meter
    - Outflow = 0.125 meter

Untuk nilai dimensi saluran U-ditch di setiap saluran-saluran outflow pada 4 lokasi yang ditinjau adalah sebagai berikut.

    - a. Taman Alumni ITS outflow 1 memiliki lebar dan kedalaman sebesar 1 meter.
    - b. Taman Alumni ITS outflow 2 memiliki lebar dan kedalaman sebesar 0.8 meter.
    - c. Taman Alumni ITS outflow 3 memiliki lebar dan kedalaman sebesar 0.6 meter.
    - d. FTK ITS Outflow 1 memiliki lebar dan kedalaman sebesar 0.6 meter.
    - e. FTK ITS Outflow 2 memiliki lebar dan kedalaman sebesar 0.6 meter.
    - f. FTK ITS Outflow 3 memiliki lebar dan kedalaman sebesar 0.8 meter.

- g. FTK ITS Outflow 4 memiliki lebar dan kedalaman sebesar 0.6 meter.
  - h. Robotika ITS outflow 1 memiliki lebar dan kedalaman sebesar 0.8 meter.
  - i. Robotika ITS outflow 2 memiliki lebar dan kedalaman sebesar 0.8 meter.
  - j. Perpustakaan ITS outflow 1 memiliki lebar dan kedalaman sebesar 0.6 meter.
  - k. Perpustakaan ITS outflow 2 memiliki lebar dan kedalaman sebesar 1 meter.
5. Berikut adalah rekap hasil kontrol Uplift pada Sigma Tank di masing-masing lokasi.
- a. Taman alumni ITS
    - Fs kondisi penuh =  $2.92 > 1.25$  (ok)
    - Fs kondisi kosong =  $1.791 > 1.25$  (ok)
  - b. Perpustakaan ITS
    - Fs kondisi penuh =  $2.92 > 1.25$  (ok)
    - Fs kondisi kosong =  $1.792 > 1.25$  (ok)
  - c. FTK ITS
    - Fs kondisi penuh =  $2.92 > 1.25$  (ok)
    - Fs kondisi kosong =  $1.791 > 1.25$  (ok)
  - d. Robotika ITS
    - Fs kondisi penuh =  $2.92 > 1.25$  (ok)
    - Fs kondisi kosong =  $1.792 > 1.25$  (ok)
6. Biaya kebutuhan air yang selama ini melalui supply PDAM dapat dihemat dari tahun 2000-2014 dengan adanya supply dari air hujan pada Sigma Tank adalah sebesar Rp 1.691.820.000.

## SARAN

1. Sigma Tank dapat dipakai sebagai alternatif penyedia suplai kebutuhan yang memanfaatkan air hujan. Dimensi Sigma Tank tergantung kebutuhan air yang diinginkan. Kebutuhan air bukan hanya penyiraman tanaman, melainkan dapat sebagai air bersih/ baku yang dipakai dalam kehidupan sehari-hari.
2. Penggunaan Sigma Tank harus berpatokan pada lahan. Untuk lahan sempit, maka dibutuhkan Sigma Tank yang berdimensi kecil. Oleh karena itu, routing harian tidak selamanya selama 14 tahun. Routing harian yang menggunakan hujan harian untuk ketersediaan air pada Sigma Tank tergantung pada kebutuhan air dan ketersediaan lahan.
3. Untuk efisiensi dalam biaya pelaksanaan dan dalam menghemat suplai air dari PDAM, dibutuhkan Sigma Tank dengan ukuran tidak terlalu besar agar tidak menghabiskan biaya yang besar saat pelaksanaan berlangsung. Contohnya tidak perlu menggunakan banyak tukang dan alat berat serta tidak perlu memperbanyak jumlah galian.
4. Untuk mengantisipasi uplift, dibutuhkan Sigma Tank yang berbahan dasar *polyphloryne* dengan nilai berat jenis  $> 1$ . Biaya *polyphloryne* dengan berat jenis  $> 1$  dan  $< 1$  adalah berbeda. Jika dalam pelaksanaannya menggunakan tipe  $< 1$  agar menghemat biaya, maka untuk mengantisipasi uplift, dibutuhkan nilai tinggi air minimum yang dimasukkan ke dalam Sigma Tank agar aman saat menahan uplift dalam keadaan kosong.
5. Dalam perencanaan outflow dan Sigma Tank tidak selalu sama di setiap wilayah. Hal tersebut dipengaruhi oleh debit, curah hujan wilayah dan lahan sekitarnya.
6. Untuk pemilihan lokasi desain Sigma Tank harus sangat memperhatikan alokasi truk air dapat moving untuk

pengambilan air dan elevasi tanah saat perencanaan saluran outflow. Saat elevasi tanah tidak memungkinkan air lewat, maka dapat dilakukan penggalian atau dengan sistem pompa.

7. Adanya pemeliharaan rutin terhadap Sigma Tank dikarenakan sistemnya di bawah tanah.



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## LAMPIRAN



## BIODATA PENULIS



Penulis lahir pada tanggal 23 September 1995 dan merupakan anak kedua dari dua bersaudara. Penulis bernama lengkap Jessica Elisabeth Sitorus ini merupakan lulusan dari SD Metodisth 1 Medan, juga pernah bersekolah di SMP Methodisth 1 Medan, dan SMAN 1 Medan yang kemudian pada tahun 2013 melanjutkan studinya di Diploma III Teknik Sipil SV-UGM. Setelah Lulus pada tahun 2016 dari

program studi Diploma III Teknik Sipil SV-UGM Penulis melanjutkan studinya ke Program Sarjana dengan mengambil program Lintas Jalur Departemen Teknik Sipil FTSLK-ITS Selama masa perkuliahan penulis pernah aktif dikegiatan jurusan yaitu menjadi koor Civil Expo UGM, Ketua ANTS UGM, Staff Dana Usaha MCC UGM, Staff olahraga dan seni Himpunan Sipil UGM dan lainnya. Selain mengisi waktu dengan kegiatan akademik dan organisasi, di waktu senggangnya penulis juga hobby travelling, membaca dan berolahraga.

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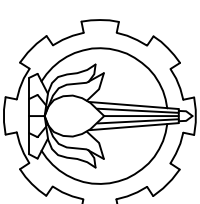
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JUDUL GAMBAR SKALA

Denah Sigma Tank  
Fak. Teknik Robotika ITS

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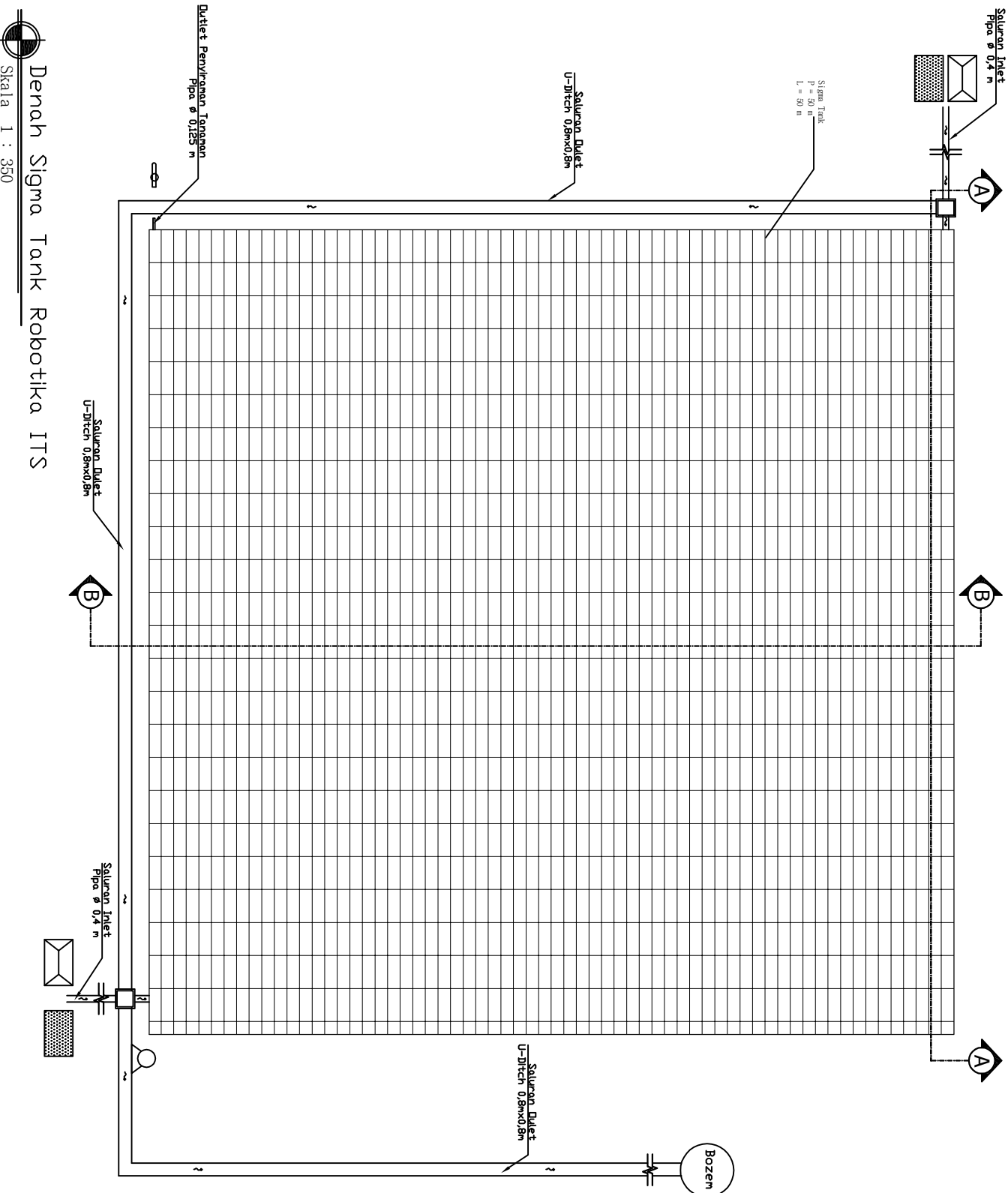
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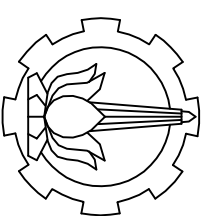
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SKAL

Denah Sigma Tank Pustaka ITS

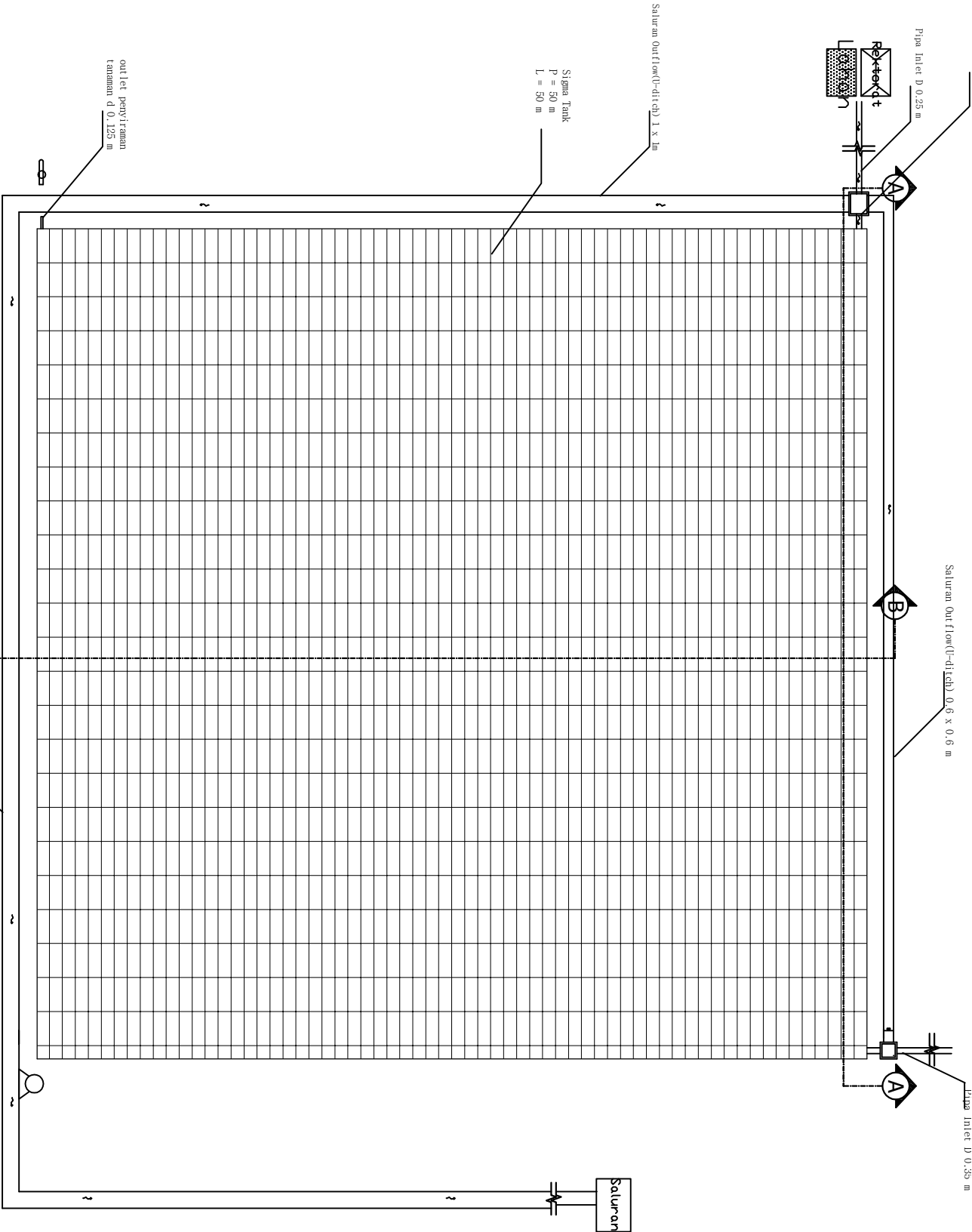
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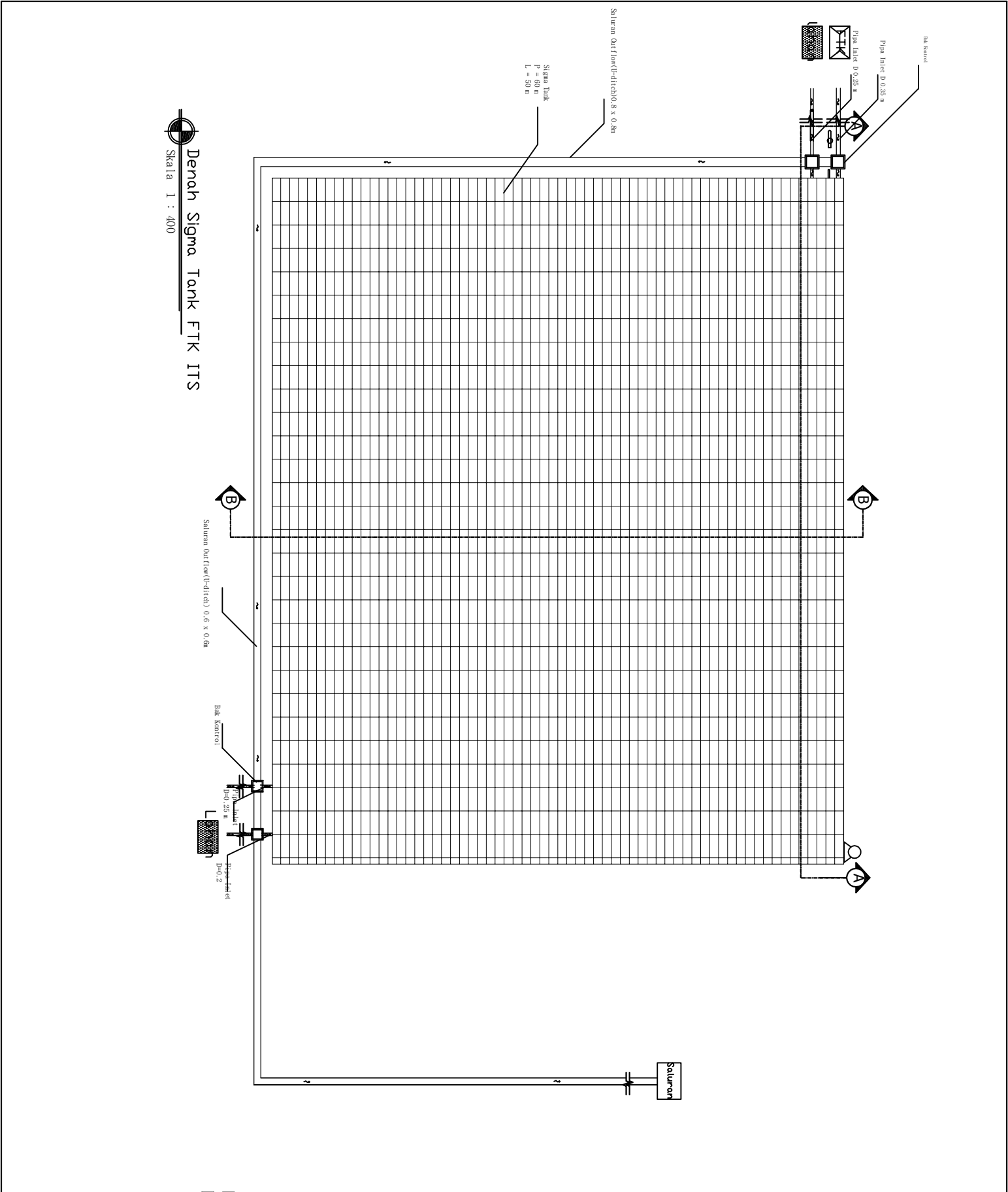
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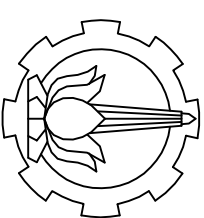
# Denah Sigma Tank Perpustakaan ITS

Skala 1 : 350



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Denah Sigma Tank Pabrik FTK ITS	1:100	
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Tank FTSLK ITS

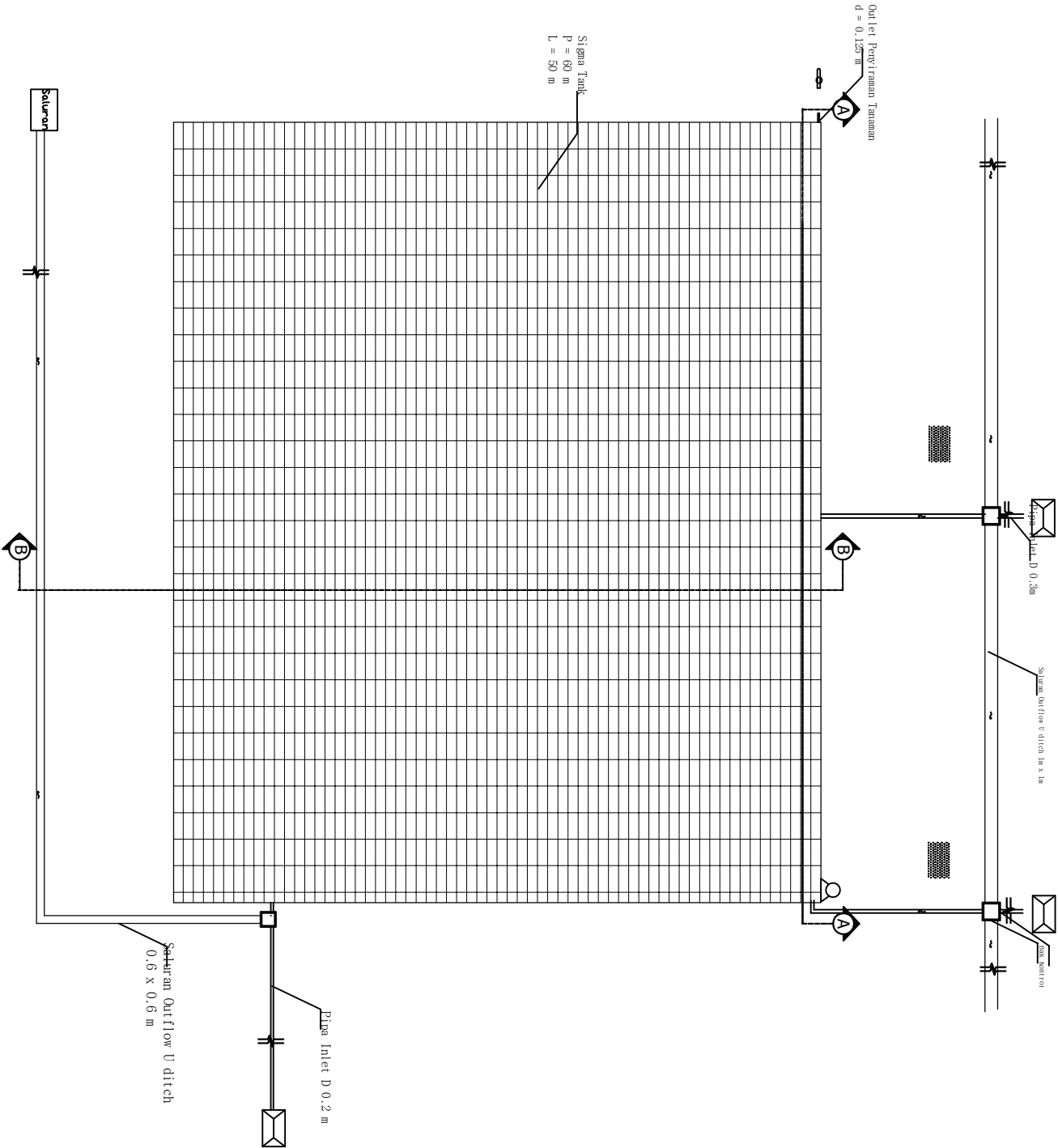
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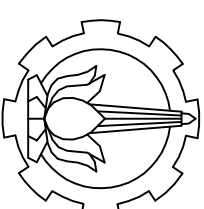
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FTSLK 3


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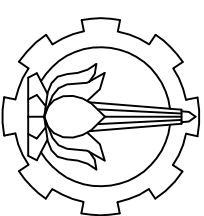
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	+3.566	
	+3.520	
Titik	1	2
E.Tanah	+3.566	+3.520
E.M.A	+3.366	+3.320
E.Dasar	+2.766	+2.72

50 m 100 m

Potongan Memanjang  
Skala 1 : NTS

		
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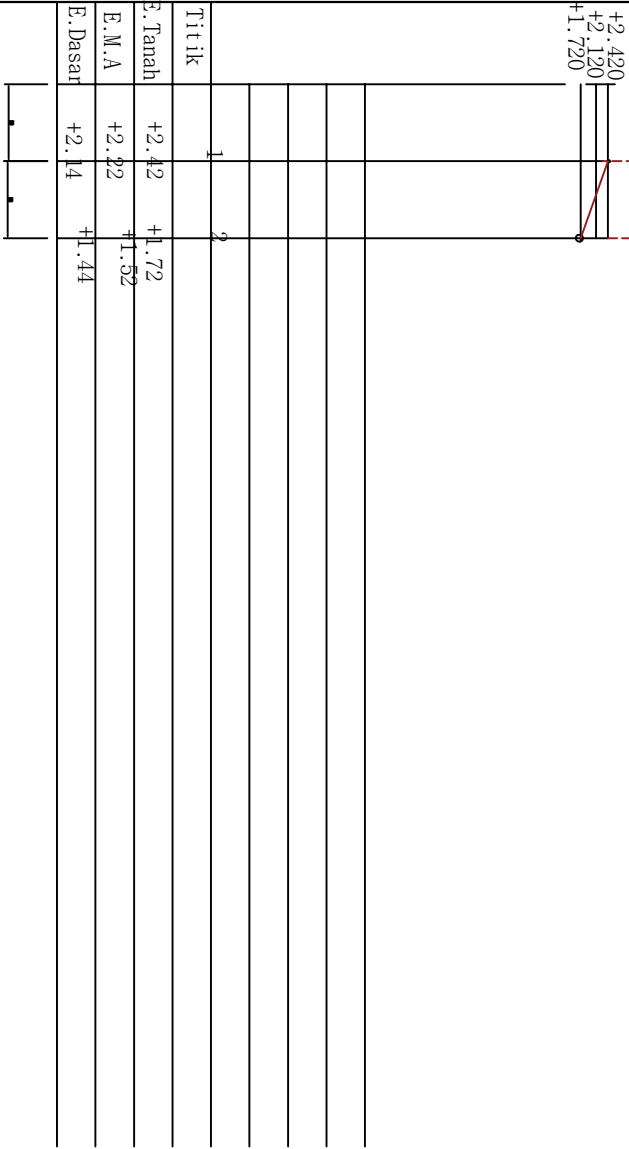
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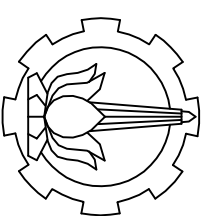
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KODE	LEMBAR	JUMLAH
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JUDUL GAMBAR	SKAI
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FTK

CATATAN

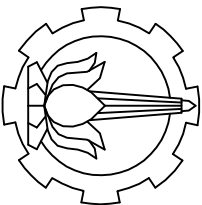
KETERANGAN

Potongan Memanjang

Skala 1 : NTS

KODE	LEMBAR	JUMLAI
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-	-	-
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FAKULTAS TEKNIK SIPIL, LINGKUNGAN DAN KEBUMIHAN  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER

TUGAS AKHIR

DOSEN PEMBIMBING

Dr. Tech. Umbara Lasminto, ST., MSc

MAHASISWA

Jessica Elisabeth Sitorus  
(NRP. 031111645000055)

LINTAS JALUR 2016

JUDUL GAMBAR

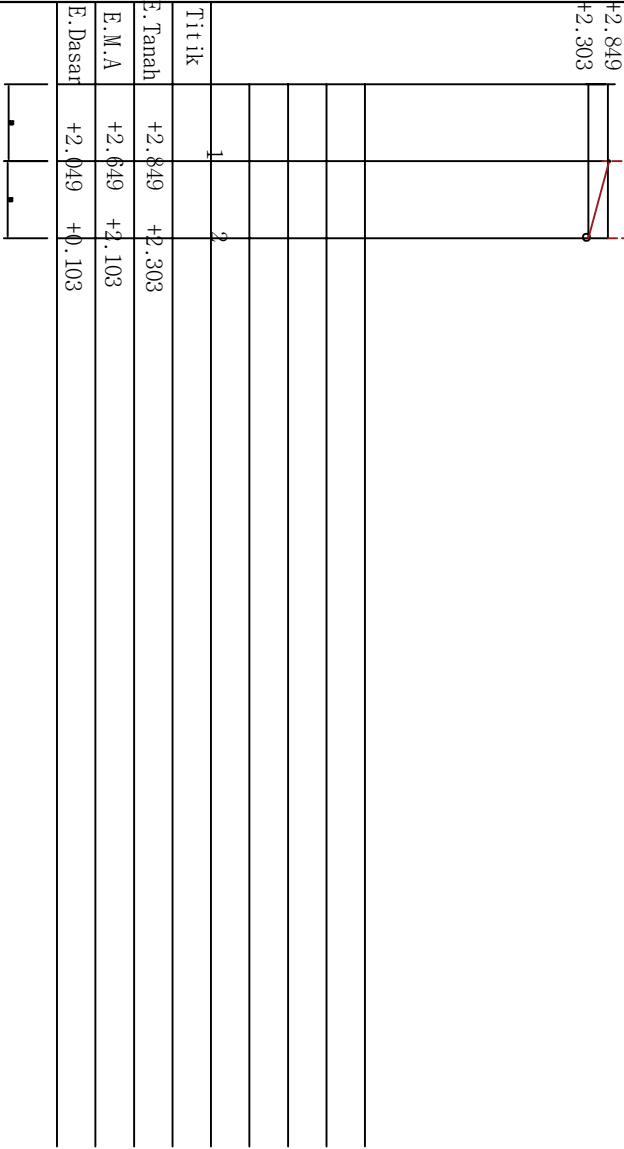
SKAL

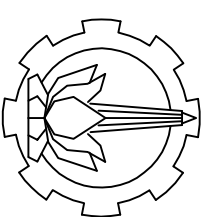
PERPUSTAKAAN

CATATAN

KETERANGAN

KODE	LEMBAR	JUMLAH
-	-	-





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Dr. Tech. Umboro Lasminito, ST., MS

MAHASISWA

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LINTAS JALUR 2016

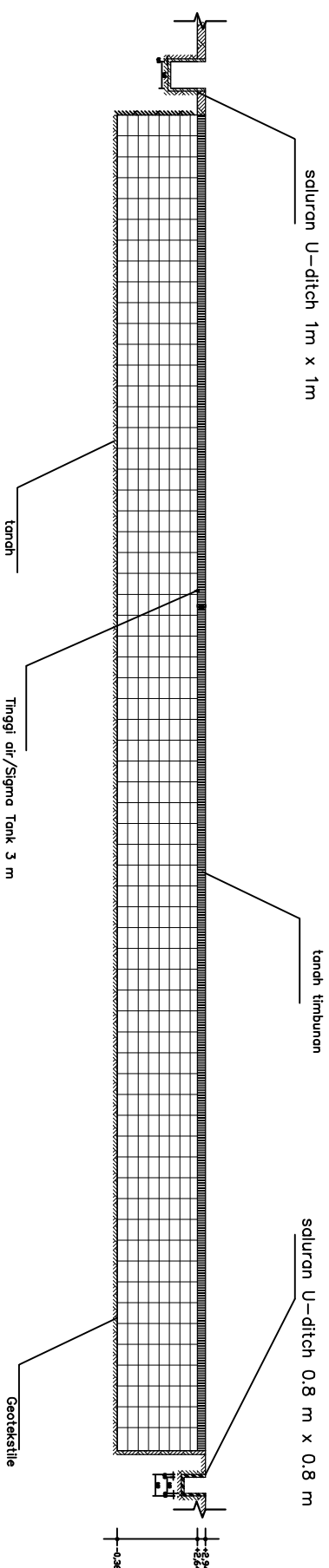
JUDUL GAMBAR SKAI

Potongan B-B Perpustakaan ITS  
1:250

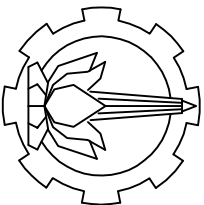
CATATAN

KETERANGAN

KODE	LEMBAR	JUMLAH
-	-	-



Potongan B-B Perpustakaan ITS  
Skala 1 : 250



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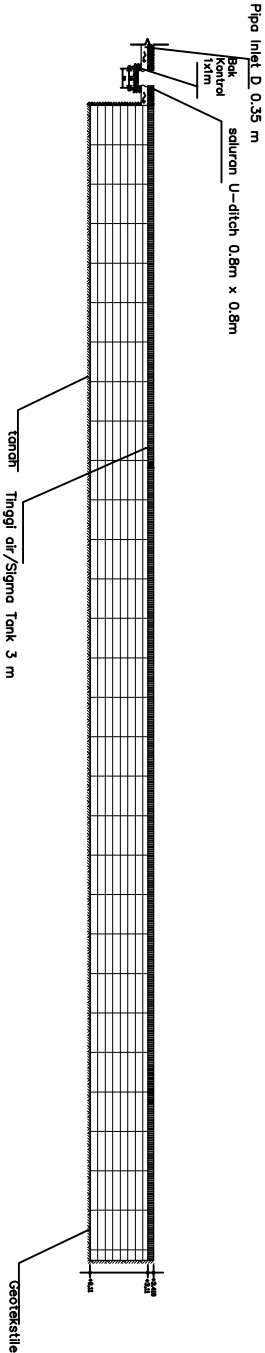
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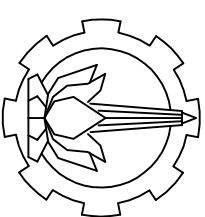
Potongan A-A FTK ITS 1:300

CATATAN

KETERANGAN

Potongan A-A FTK ITS  
Skala 1 : 300





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JUDUL GAMBAR SKAI

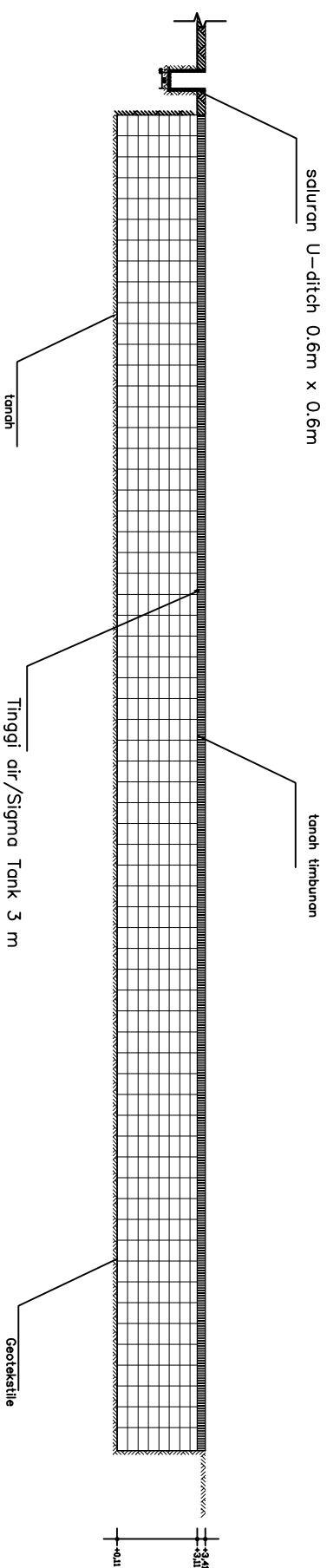
Potongan B-B FTK ITS 1: 250

CATATAN

KETERANGAN

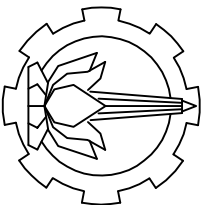
KODE	LEMBAR	JUMLAH
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-	-	-
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Potongan B-B FTK ITS  
Skala 1 : 250





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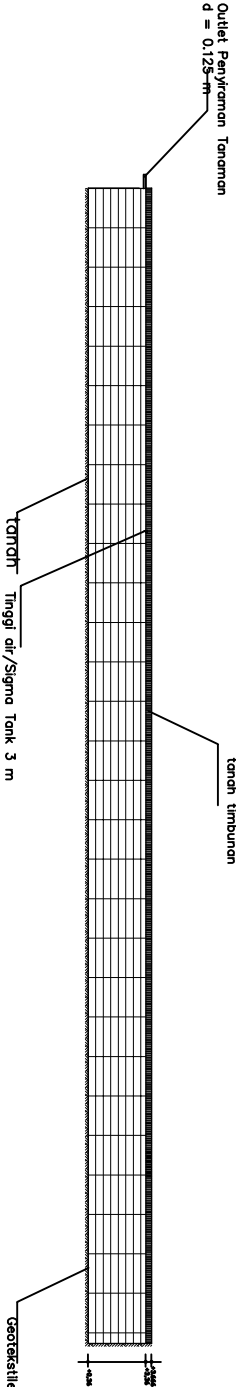
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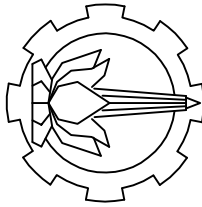
Potongan A-A FTSLK ITS1: 300

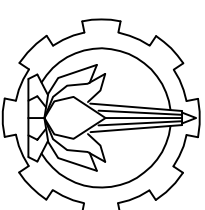
CATATAN

KETERANGAN

Potongan A-A FTSLK ITS  
Skala 1 : 300



		
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TUGAS AKHIR		
DOSEN PEMBIMBING		
Dr. Tech. Umboro Lasminito, ST., MS		
MAHASISWA		
<u>Jessica Elisabeth Storus</u> (NRP. 03111645000055)		
LINTAS JALUR 2016		
JUDUL GAMBAR	SKALA	
Potongan A-A FTSLK ITS	1: 300	
CATATAN		
KETERANGAN		
KODE	LEMBAR	JUMLAH
-	-	-



**DEPARTEMEN TEKNIK SIPIL  
FAKULTAS TEKNIK SIPIL LINGKUNGAN DAN KEBUMAH  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

## TUGAS AKHIR

## DOSEN PEMBIMBING

**Dr. Tech. Umboro Lasminto, ST., MS**

**MAHASISWA**

**Jessica Elisabeth Sitorus**  
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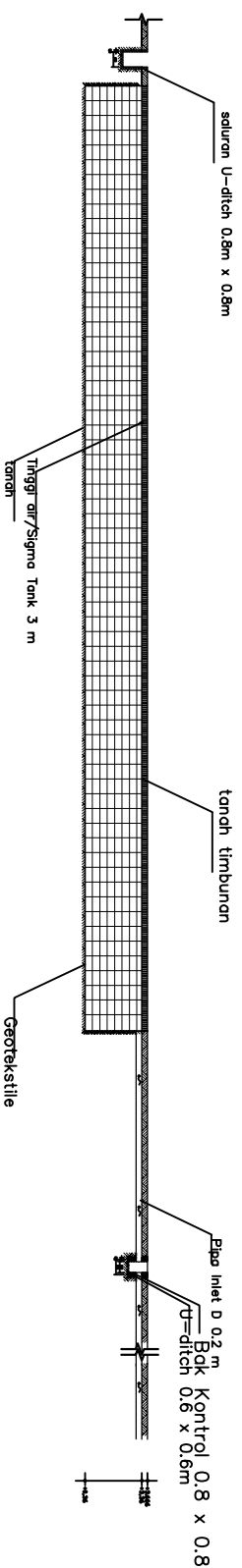
LINTAS JALUR 2016

JUDUL GAMBAR	SKAL
Potongan 3-3 FTSLK ITS	1:250

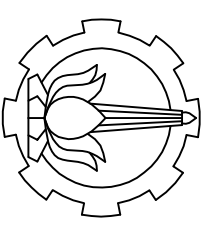
CATATAN

## KETERANGAN

Potongan B-B FTSLK ITS  
Skala 1 : 250



KODE	LEMBAR	JUMLAH
-	-	-



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JUDUL GAMBAR

SKAL

Bak Kontrol 0,8 m

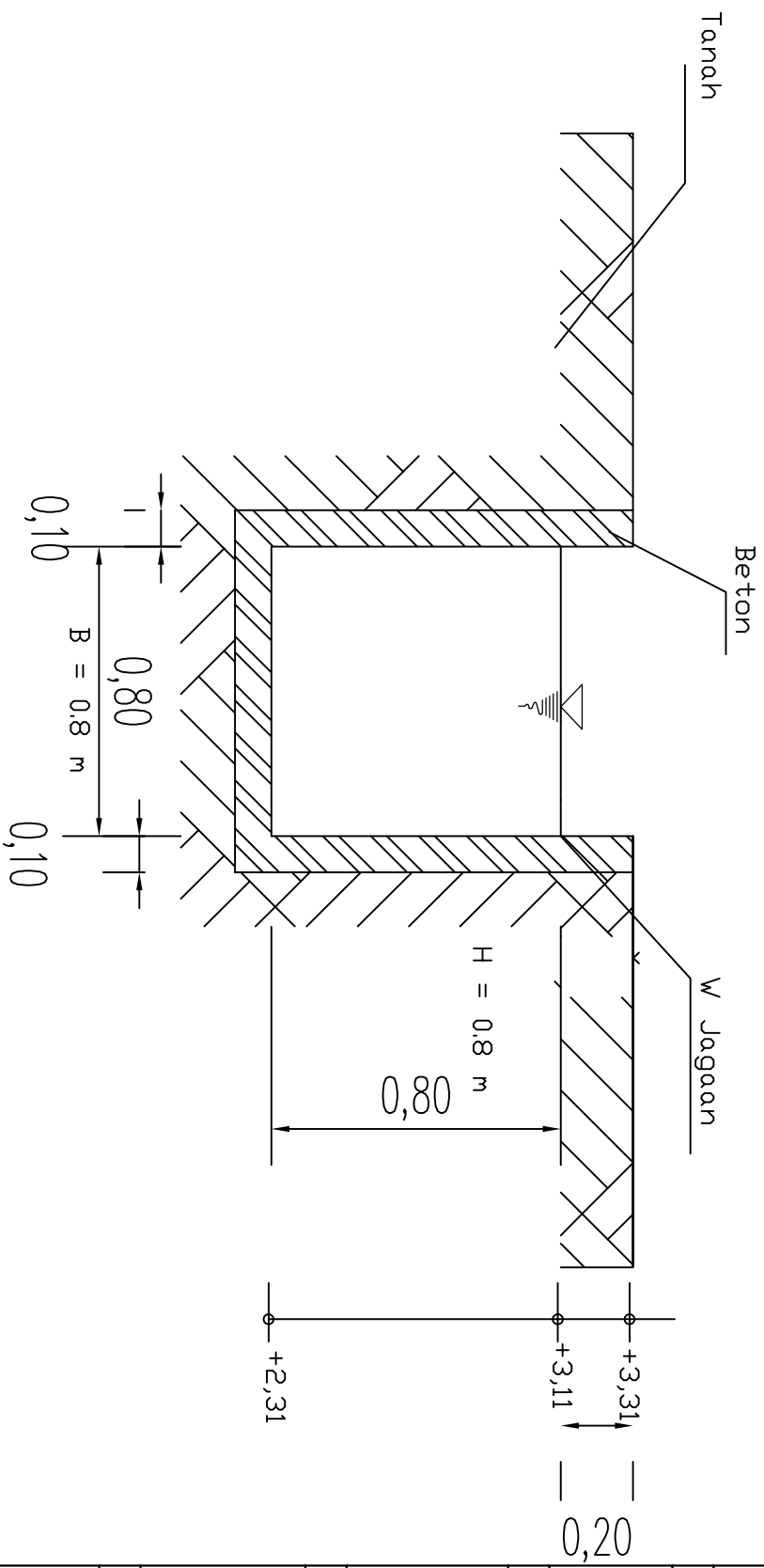
1 : 10

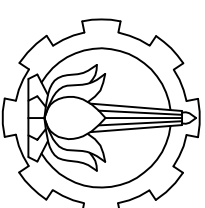
CATATAN

KETERANGAN

B = Lebar Bak  
Kontrol  
H = Tinggi air  
Bak Kontrol

KODE	LEMBAR	JUMLAH
-	-	-





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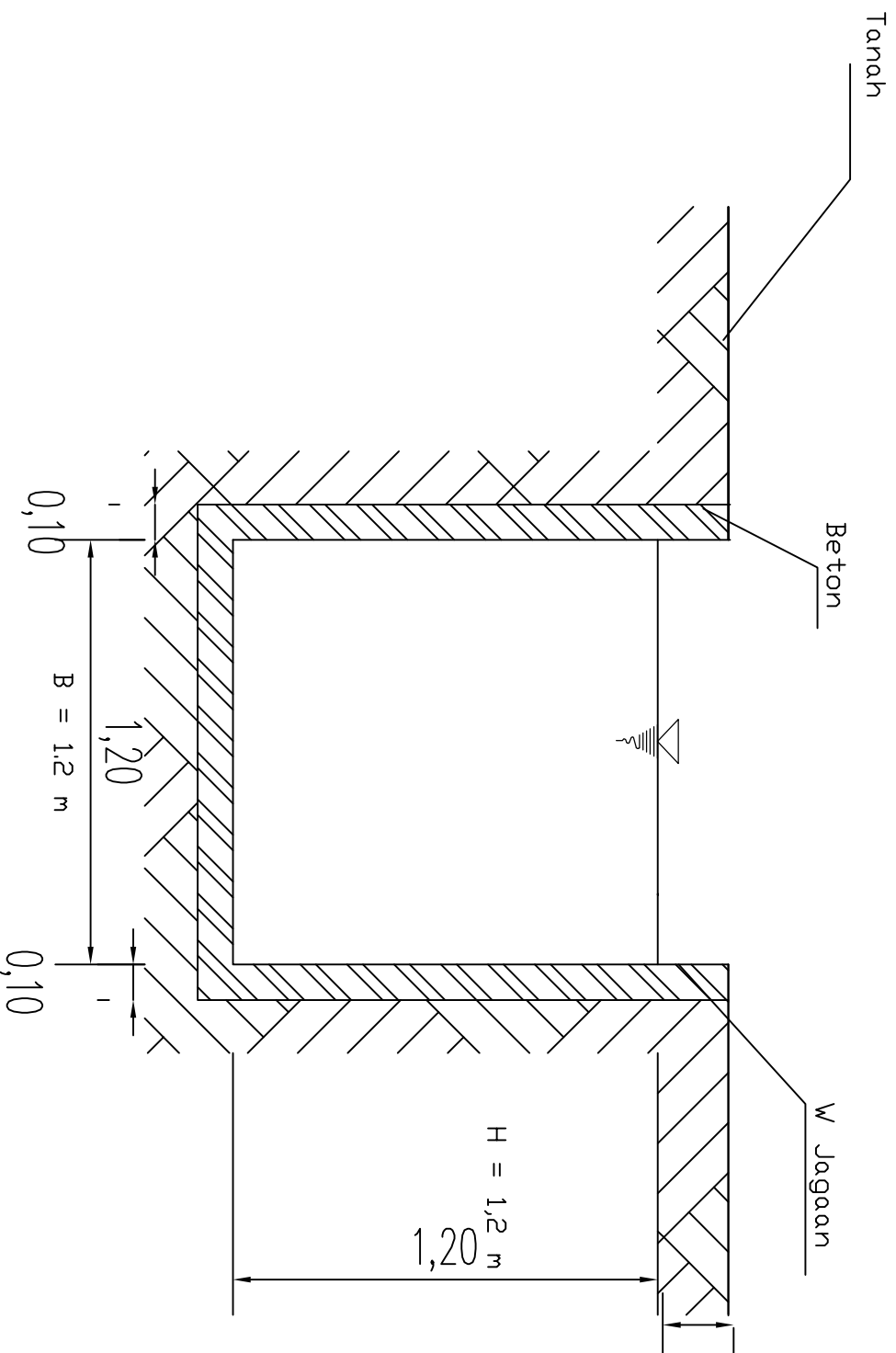
JUDUL GAMBAR SKAI

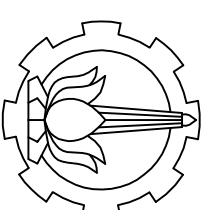
bak kontrol 1.2 m 1 : 10

CATATAN

KETERANGAN

KODE	LEMBAR	JUMLAH
-	-	-





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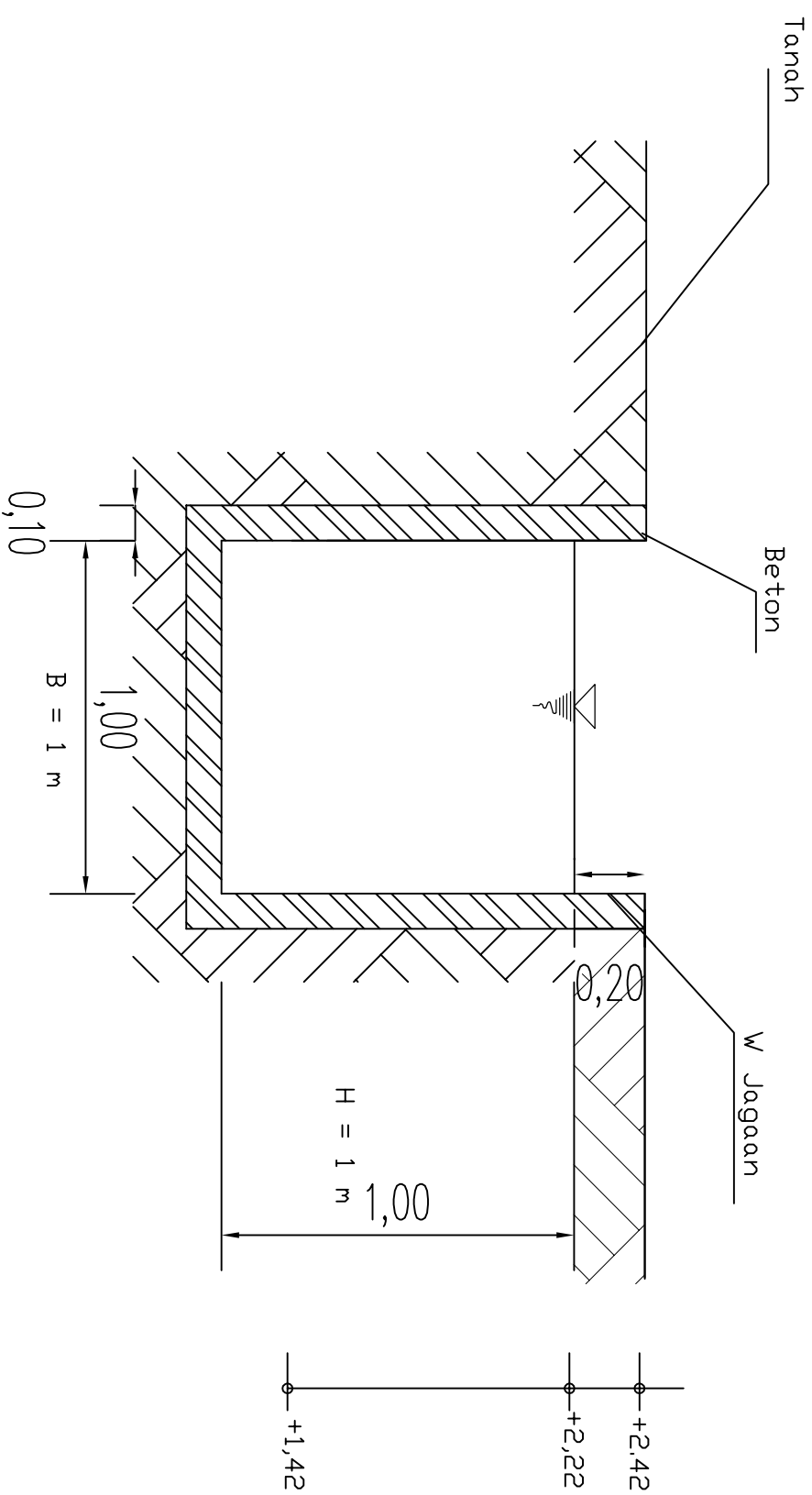
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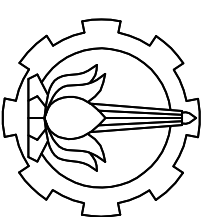
bak kontrol 1 m 1 : 10

CATATAN

KETERANGAN

KODE	LEMBAR	JUMLAH
-	-	-





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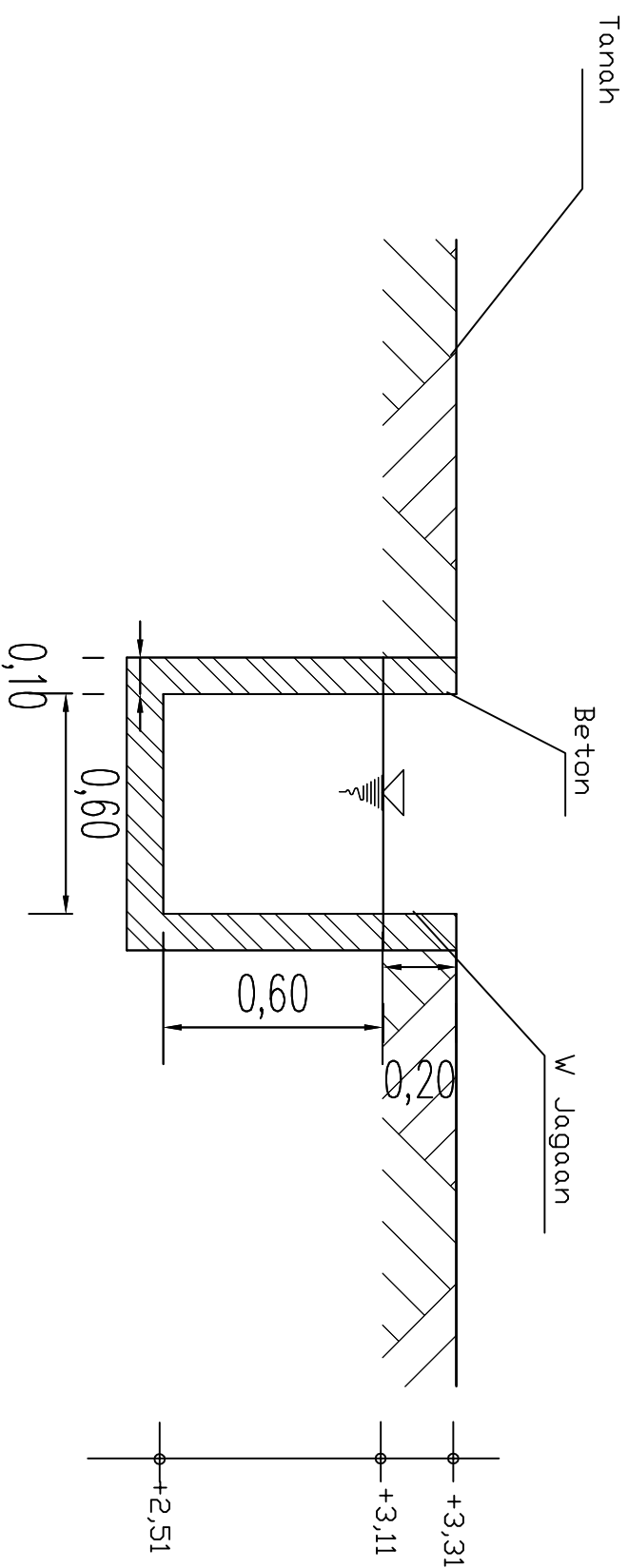
sal outflow 0.6 m 1 : 10

CATATAN

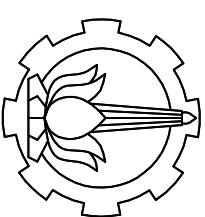
KETERANGAN

KODE	LEMBAR	JUMLAH
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-	-	-
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Saluran U alir 0.6 m (FTK)  
Skala 1 : 10



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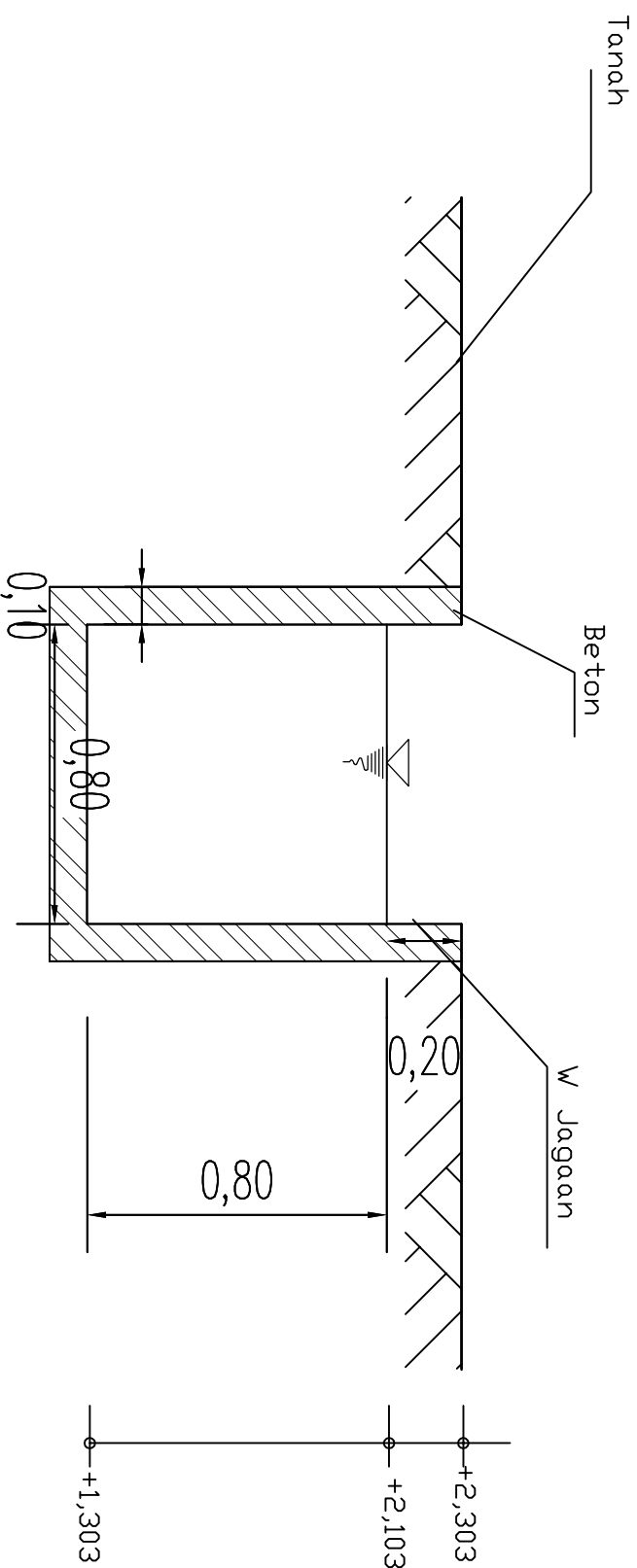
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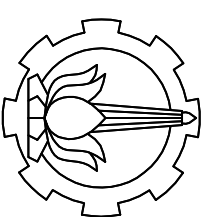
sal outflow 0.8 m 1 : 10

CATATAN

KETERANGAN

KODE	LEMBAR	JUMLAH
-	-	-





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FAKULTAS TEKNIK SIPIL, LINGKUNGAN DAN KEBUMAH  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER

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Jessica Elisabeth Stiorus  
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LINTAS JALUR 2016

JUDUL GAMBAR SKAI

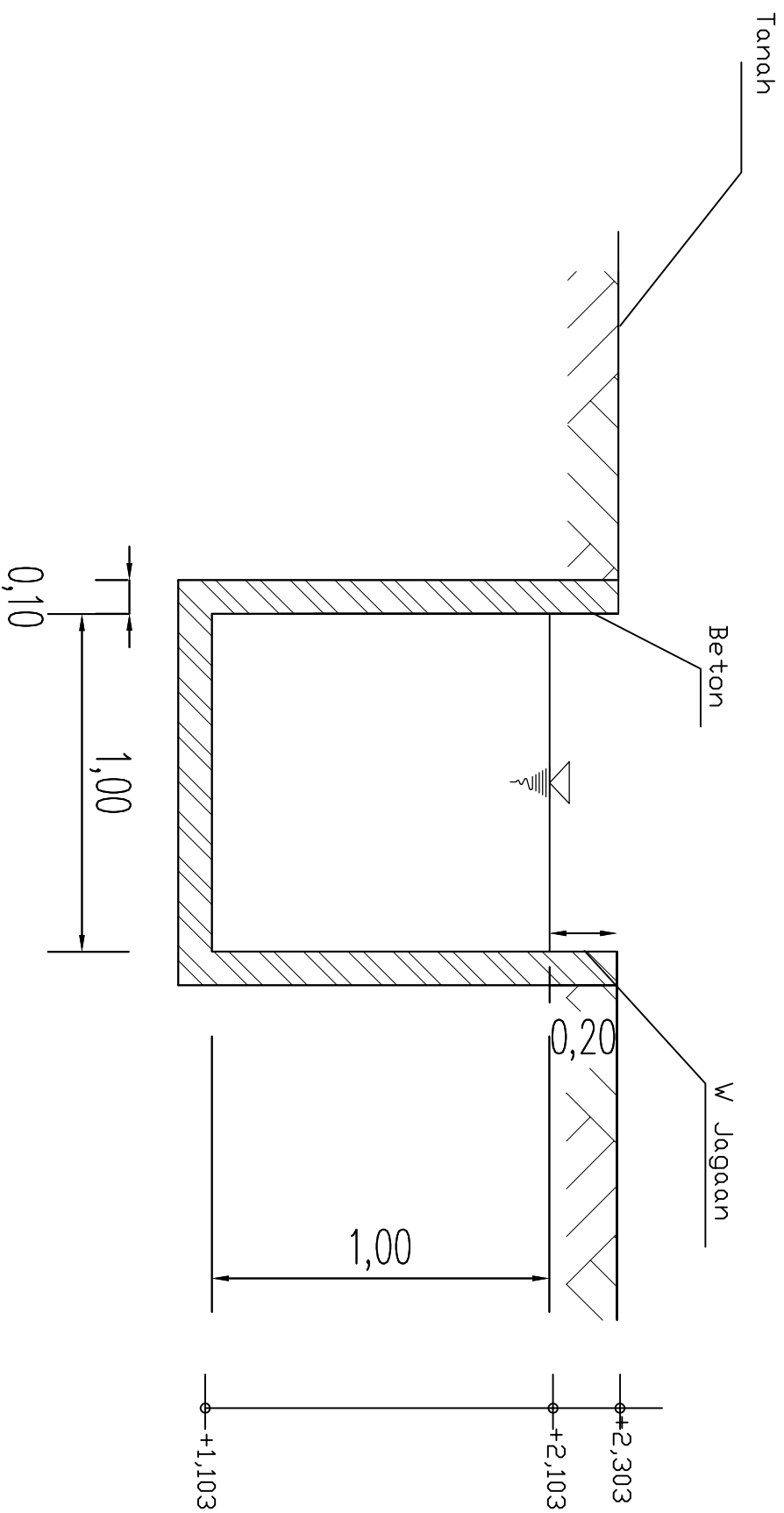
sal outflow 1 m 1 : 10

CATATAN

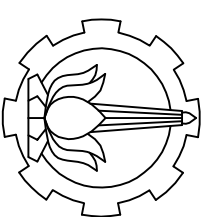
KETERANGAN

KODE	LEMBAR	JUMLAH
------	--------	--------

-	-	-
---	---	---







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Jessica Elisabeth Stiorus  
(NRP. 03111645000055)

LINTAS JALUR 2016

JUDUL GAMBAR	SKALA

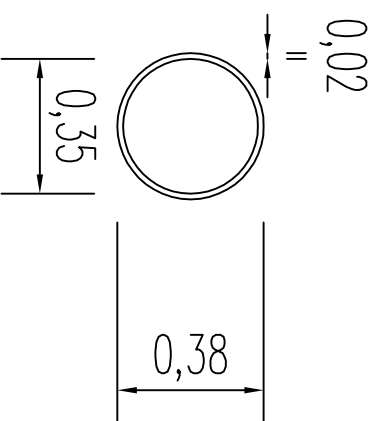
CATATAN

KETERANGAN

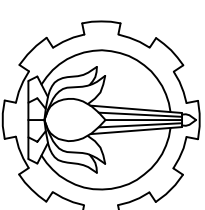
KODE	LEMBAR	JUMLAH
-	-	-



Detail saluran pipa inflow D=0.3  
Skala 1 : 250



Detail saluran pipa inflow D=0.4  
Skala 1 : 250



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(NRP. 03111645000055)

LINTAS JALUR 2016

JUDUL GAMBAR

SKAL

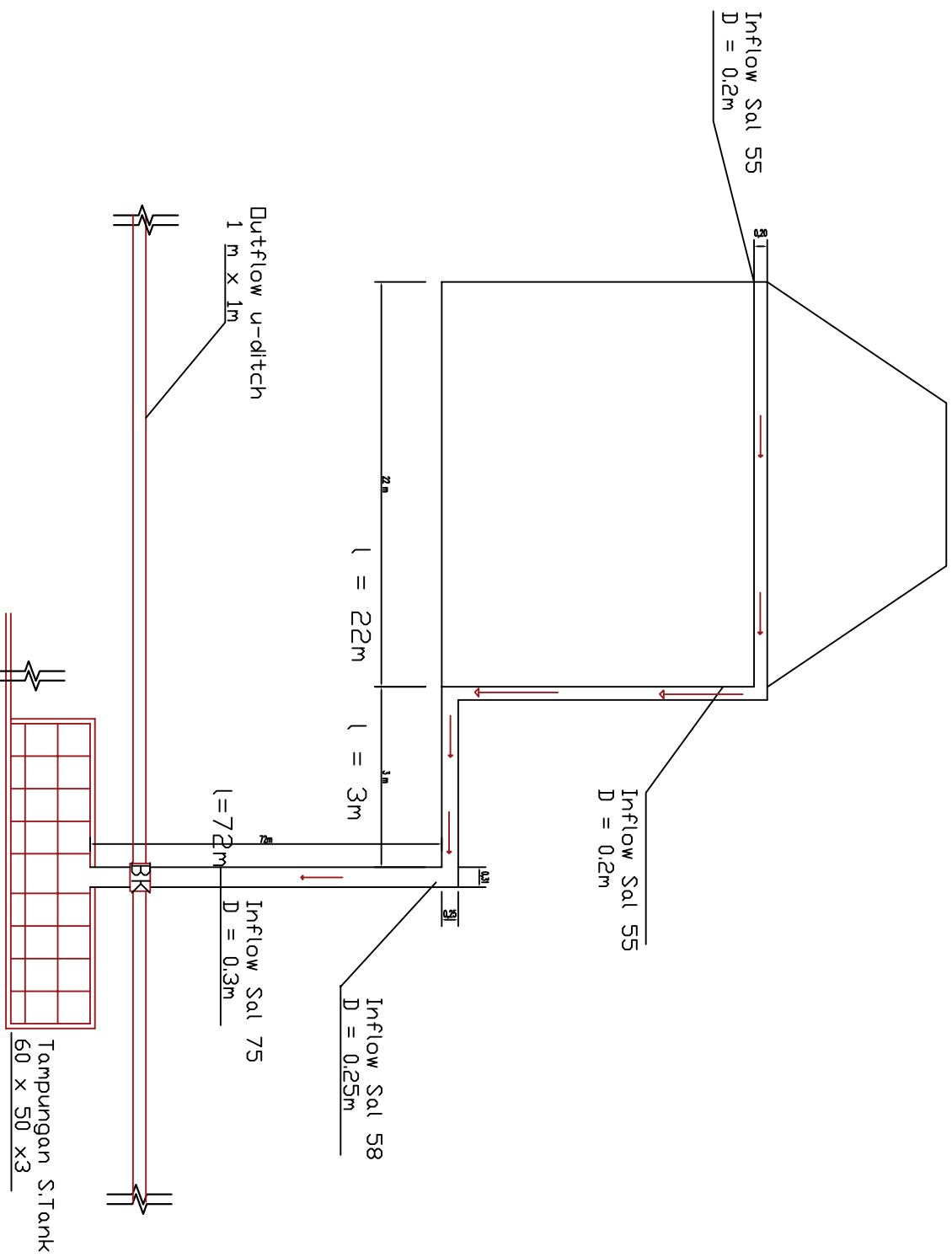
CATATAN

KETERANGAN

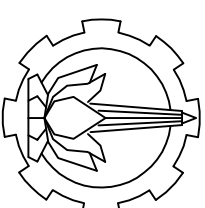
BK = Bak Kontrol 1,2 x 1,2

KODE	LEMBAR	JUMLAI
------	--------	--------

-	-	-
---	---	---



Skema Inflow dan Tampungan  
Skala 1 : NTS



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INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

**TUGAS AKHIR**

## DOSEN PEMBIMBING

**Dr. Tech. Umboro Lasminto, ST., M.S**

MAHASISWA

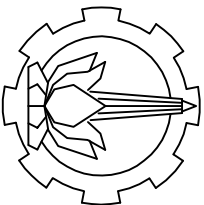
**Jessica Elisabeth Sitorus**  
(NRP. 0311164500055)

LINTAS JALUR 2016

Diagram showing a cross-section of a landfill cell. The layers from top to bottom are: Tanah Dasar (Base Soil), Pipa (Pipe), Inlet, saluran u. limbah 0.8 x 0.8m (Waste Outlet Channel), Blok Kontrol 1 x 1m (Control Block), Tanah Tumbuhan (Plant Soil), Geotextile, and Sigma Tank. The diagram illustrates the structural components and materials used in the landfill construction.

CATATAN		
KETERANGAN		
KODE	LEMBAR	JUMLAH
-	-	-





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JUDUL GAMBAR

SKAL

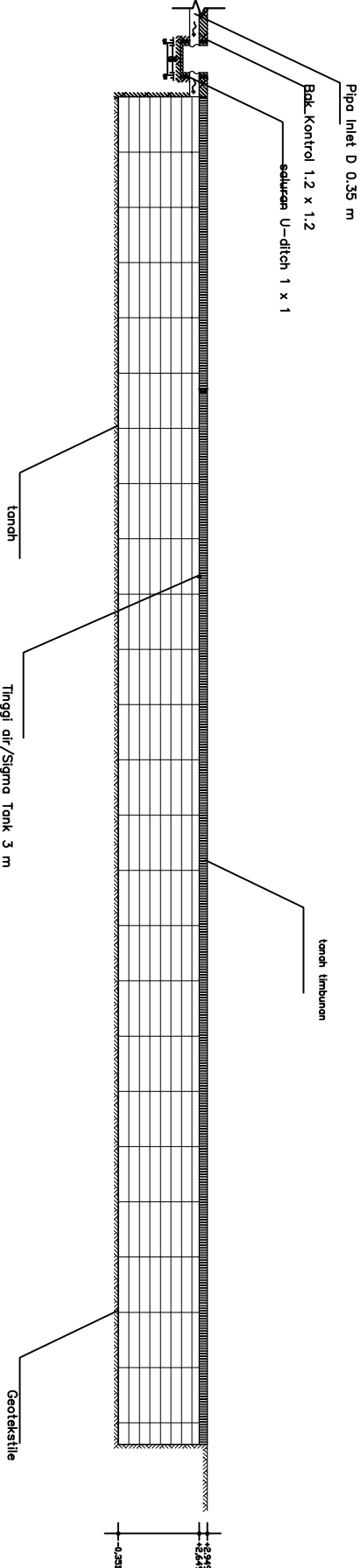
Potongan A-A Perpustakaan ITS

1:250

CATATAN

KETERANGAN

KODE	LEMBAR	JUMLAH
-	-	-



Potongan A-A Perpustakaan ITS  
Skala 1 : 250

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	15	208.932503		0	4866.559559	1.62218652
2	20	278.57667		0	5145.136229	1.71504541
3	10	139.288335		0	5284.424564	1.761474855
4	140	1950.03669	1500	0	5734.461254	1.911487085
5	13	181.074836		0	5915.53609	1.971845363
6	25	348.220838	1500	0	4763.756927	1.587918976
7	0	0		0	4763.756927	1.587918976
8	0	0		0	4763.756927	1.587918976
9	0	0		0	4763.756927	1.587918976
10	10	139.288335		0	4903.045262	1.634348421
11	0	0		0	4903.045262	1.634348421
12	20	278.57667	1500	0	3681.621932	1.227207311
13	0	0		0	3681.621932	1.227207311
14	80	1114.30668		0	4795.928612	1.598642871
15	0	0		0	4795.928612	1.598642871
16	30	417.865005		0	5213.793617	1.737931206
17	0	0		0	5213.793617	1.737931206
18	0	0		0	5213.793617	1.737931206
19	0	0		0	5213.793617	1.737931206
20	0	0		18	5195.793617	1.731931206
21	0	0		18	5177.793617	1.725931206
22	0	0		18	5159.793617	1.719931206
23	0	0		18	5141.793617	1.713931206
24	0	0		18	5123.793617	1.707931206
25	0	0		18	5105.793617	1.701931206
26	0	0		18	5087.793617	1.695931206
27	0	0		18	5069.793617	1.689931206
28	15	208.932503		0	5278.72612	1.759575373
29	0	0		0	5278.72612	1.759575373
30	0	0		0	5278.72612	1.759575373
31	0	0		0	5278.72612	1.759575373
Februari						
1	20	278.57667	1500	0	4057.30279	1.352434263
2	0	0		0	4057.30279	1.352434263
3	0	0		0	4057.30279	1.352434263
4	0	0		0	4057.30279	1.352434263
5	0	0		18	4039.30279	1.346434263
6	27	376.078505		0	4415.381294	1.471793765
7	50	696.441675		0	5111.822969	1.70394099
8	0	0		0	5111.822969	1.70394099
9	30	417.865005		0	5529.687974	1.843229325
10	0	0		0	5529.687974	1.843229325
11	15	208.932503		0	5738.620477	1.912873492
12	6	83.573001		0	5822.193478	1.940731159
13	20	278.57667	1500	0	4600.770148	1.533590049
14	0	0		0	4600.770148	1.533590049
15	0	0		0	4600.770148	1.533590049
16	0	0		0	4600.770148	1.533590049
17	15	208.932503		0	4809.70265	1.603234217
18	20	278.57667		0	5088.27932	1.696093107
19	0	0		0	5088.27932	1.696093107
20	40	557.15334		0	5645.43266	1.881810887
21	15	208.932503		0	5854.365163	1.951455054
22	57	793.94351	1500	0	5148.308672	1.716102891
23	0	0		0	5148.308672	1.716102891
24	0	0		0	5148.308672	1.716102891
25	30	417.865005		0	5566.173677	1.855391226
26	47	654.655175	1500	0	4720.828852	1.573609617
27	5	69.6441675		0	4790.473019	1.59682434
28	27	376.078505		0	5166.551524	1.722183841
Maret						
1	47	654.655175	1500	0	4321.206698	1.440402233
2	0	0		0	4321.206698	1.440402233
3	38	529.295673		0	4850.502371	1.616834124
4	0	0		0	4850.502371	1.616834124
5	0	0		0	4850.502371	1.616834124
6	0	0		0	4850.502371	1.616834124
7	40	557.15334		0	5407.655711	1.802551904
8	0	0		0	5407.655711	1.802551904
9	0	0		0	5407.655711	1.802551904

10	0	0		0	5407.655711	1.802551904
11	27	376.078505		0	5783.734216	1.927911405
12	0	0		0	5783.734216	1.927911405
13	0	0		0	5783.734216	1.927911405
14	0	0		0	5783.734216	1.927911405
15	30	417.865005	1500	0	4701.599221	1.56719974
16	0	0		0	4701.599221	1.56719974
17	0	0		0	4701.599221	1.56719974
18	20	278.57667		0	4980.175891	1.66005863
19	45	626.797508		0	5606.973398	1.868991133
20	50	696.441675	1500	0	4803.415073	1.601138358
21	0	0		0	4803.415073	1.601138358
22	0	0		0	4803.415073	1.601138358
23	0	0		0	4803.415073	1.601138358
24	12	167.146002	1500	0	3470.561075	1.156853692
25	0	0		0	3470.561075	1.156853692
26	0	0		0	3470.561075	1.156853692
27	0	0		0	3470.561075	1.156853692
28	45	626.797508		0	4097.358583	1.365786194
29	60	835.73001		0	4933.088593	1.644362864
30	0	0		0	4933.088593	1.644362864
31	0	0		0	4933.088593	1.644362864
April						
1	0	0		0	4933.088593	1.644362864
2	0	0		18	4915.088593	1.638362864
3	0	0		18	4897.088593	1.632362864
4	0	0		18	4879.088593	1.626362864
5	0	0		18	4861.088593	1.620362864
6	0	0		18	4843.088593	1.614362864
7	0	0		18	4825.088593	1.608362864
8	0	0		18	4807.088593	1.602362864
9	40	557.15334	1500	0	3864.241933	1.288080644
10	15	208.932503		0	4073.174435	1.357724812
11	0	0		0	4073.174435	1.357724812
12	25	348.220838		0	4421.395273	1.473798424
13	0	0		0	4421.395273	1.473798424
14	0	0		0	4421.395273	1.473798424
15	0	0		0	4421.395273	1.473798424
16	0	0		18	4403.395273	1.467798424
17	12	167.146002		0	4570.541275	1.523513758
18	0	0		0	4570.541275	1.523513758
19	0	0		0	4570.541275	1.523513758
20	0	0		0	4570.541275	1.523513758
21	8	111.430668		0	4681.971943	1.560657314
22	0	0		0	4681.971943	1.560657314
23	0	0		0	4681.971943	1.560657314
24	0	0		0	4681.971943	1.560657314
25	0	0		18	4663.971943	1.554657314
26	0	0		18	4645.971943	1.548657314
27	0	0		18	4627.971943	1.542657314
28	0	0		18	4609.971943	1.536657314
29	0	0		18	4591.971943	1.530657314
30	58	807.872343		0	5399.844286	1.799948095

Mei						
1	0	0		0	5399.844286	1.799948095
2	0	0		0	5399.844286	1.799948095
3	0	0		0	5399.844286	1.799948095
4	0	0		18	5381.844286	1.793948095
5	0	0		18	5363.844286	1.787948095
6	0	0		18	5345.844286	1.781948095
7	0	0		18	5327.844286	1.775948095
8	0	0		18	5309.844286	1.769948095
9	0	0		18	5291.844286	1.763948095
10	30	417.865005		0	5709.709291	1.90323643
11	0	0		0	5709.709291	1.90323643
12	0	0		0	5709.709291	1.90323643
13	0	0		0	5709.709291	1.90323643
14	0	0		18	5691.709291	1.89723643
15	0	0		18	5673.709291	1.89123643
16	0	0		18	5655.709291	1.88523643
17	0	0		18	5637.709291	1.87923643
18	0	0		18	5619.709291	1.87323643
19	0	0		18	5601.709291	1.86723643
20	0	0		18	5583.709291	1.86123643
21	0	0		18	5565.709291	1.85523643
22	0	0		18	5547.709291	1.84923643
23	0	0		18	5529.709291	1.84323643
24	0	0		18	5511.709291	1.83723643
25	0	0		18	5493.709291	1.83123643
26	0	0		18	5475.709291	1.82523643
27	0	0		18	5457.709291	1.81923643
28	0	0		18	5439.709291	1.81323643
29	20	278.57667		0	5718.285961	1.90609532
30	0	0		0	5718.285961	1.90609532
31	5	69.6441675		0	5787.930128	1.929310043
Juni						
1	5	69.6441675		0	5857.574296	1.952524765
2	0	0		0	5857.574296	1.952524765
3	0	0		0	5857.574296	1.952524765
4	0	0		0	5857.574296	1.952524765
5	0	0		18	5839.574296	1.946524765
6	0	0		18	5821.574296	1.940524765
7	0	0		18	5803.574296	1.934524765
8	0	0		18	5785.574296	1.928524765
9	0	0		18	5767.574296	1.922524765
10	0	0		18	5749.574296	1.916524765
11	0	0		18	5731.574296	1.910524765
12	0	0		18	5713.574296	1.904524765
13	0	0		18	5695.574296	1.898524765
14	0	0		18	5677.574296	1.892524765
15	0	0		18	5659.574296	1.886524765
16	0	0		18	5641.574296	1.880524765
17	0	0		18	5623.574296	1.874524765
18	0	0		18	5605.574296	1.868524765
19	0	0		18	5587.574296	1.862524765
20	0	0		18	5569.574296	1.856524765
21	0	0		18	5551.574296	1.850524765
22	0	0		18	5533.574296	1.844524765
23	0	0		18	5515.574296	1.838524765
24	0	0		18	5497.574296	1.832524765
25	0	0		18	5479.574296	1.826524765
26	0	0		18	5461.574296	1.820524765
27	0	0		18	5443.574296	1.814524765
28	0	0		18	5425.574296	1.808524765
29	0	0		18	5407.574296	1.802524765
30	0	0		18	5389.574296	1.796524765
Juli						
1	0	0		18	5371.574296	1.790524765
2	0	0		18	5353.574296	1.784524765
3	0	0		18	5335.574296	1.778524765
4	0	0		18	5317.574296	1.772524765
5	0	0		18	5299.574296	1.766524765
6	0	0		18	5281.574296	1.760524765
7	0	0		18	5263.574296	1.754524765
8	0	0		18	5245.574296	1.748524765
9	0	0		18	5227.574296	1.742524765
10	0	0		18	5209.574296	1.736524765



11	0	0		18	5191.574296	1.730524765
12	0	0		18	5173.574296	1.724524765
13	0	0		18	5155.574296	1.718524765
14	0	0		18	5137.574296	1.712524765
15	0	0		18	5119.574296	1.706524765
16	0	0		18	5101.574296	1.700524765
17	0	0		18	5083.574296	1.694524765
18	0	0		18	5065.574296	1.688524765
19	0	0		18	5047.574296	1.682524765
20	0	0		18	5029.574296	1.676524765
21	0	0		18	5011.574296	1.670524765
22	0	0		18	4993.574296	1.664524765
23	0	0		18	4975.574296	1.658524765
24	0	0		18	4957.574296	1.652524765
25	0	0		18	4939.574296	1.646524765
26	0	0		18	4921.574296	1.640524765
27	0	0		18	4903.574296	1.634524765
28	0	0		18	4885.574296	1.628524765
29	0	0		18	4867.574296	1.622524765
30	0	0		18	4849.574296	1.616524765
31	0	0		18	4831.574296	1.610524765
Agustus						
1	0	0		18	4813.574296	1.604524765
2	0	0		18	4795.574296	1.598524765
3	0	0		18	4777.574296	1.592524765
4	0	0		18	4759.574296	1.586524765
5	0	0		18	4741.574296	1.580524765
6	0	0		18	4723.574296	1.574524765
7	0	0		18	4705.574296	1.568524765
8	0	0		18	4687.574296	1.562524765
9	0	0		18	4669.574296	1.556524765
10	0	0		18	4651.574296	1.550524765
11	0	0		18	4633.574296	1.544524765
12	0	0		18	4615.574296	1.538524765
13	0	0		18	4597.574296	1.532524765
14	0	0		18	4579.574296	1.526524765
15	0	0		18	4561.574296	1.520524765
16	0	0		18	4543.574296	1.514524765
17	0	0		18	4525.574296	1.508524765
18	0	0		18	4507.574296	1.502524765
19	0	0		18	4489.574296	1.496524765
20	0	0		18	4471.574296	1.490524765
21	0	0		18	4453.574296	1.484524765
22	0	0		18	4435.574296	1.478524765
23	0	0		18	4417.574296	1.472524765
24	0	0		18	4399.574296	1.466524765
25	0	0		18	4381.574296	1.460524765
26	0	0		18	4363.574296	1.454524765
27	0	0		18	4345.574296	1.448524765
28	0	0		18	4327.574296	1.442524765
29	0	0		18	4309.574296	1.436524765
30	0	0		18	4291.574296	1.430524765
31	0	0		18	4273.574296	1.424524765

September						
1	0	0		18	4255.574296	1.418524765
2	0	0		18	4237.574296	1.412524765
3	0	0		18	4219.574296	1.406524765
4	0	0		18	4201.574296	1.400524765
5	0	0		18	4183.574296	1.394524765
6	0	0		18	4165.574296	1.388524765
7	0	0		18	4147.574296	1.382524765
8	0	0		18	4129.574296	1.376524765
9	0	0		18	4111.574296	1.370524765
10	0	0		18	4093.574296	1.364524765
11	0	0		18	4075.574296	1.358524765
12	0	0		18	4057.574296	1.352524765
13	0	0		18	4039.574296	1.346524765
14	0	0		18	4021.574296	1.340524765
15	0	0		18	4003.574296	1.334524765
16	0	0		18	3985.574296	1.328524765
17	0	0		18	3967.574296	1.322524765
18	0	0		18	3949.574296	1.316524765
19	0	0		18	3931.574296	1.310524765
20	0	0		18	3913.574296	1.304524765
21	0	0		18	3895.574296	1.298524765
22	0	0		18	3877.574296	1.292524765
23	0	0		18	3859.574296	1.286524765
24	0	0		18	3841.574296	1.280524765
25	0	0		18	3823.574296	1.274524765
26	0	0		18	3805.574296	1.268524765
27	0	0		18	3787.574296	1.262524765
28	0	0		18	3769.574296	1.256524765
29	0	0		18	3751.574296	1.250524765
30	0	0		18	3733.574296	1.244524765
Oktober						
1	0	0		18	3715.574296	1.238524765
2	0	0		18	3697.574296	1.232524765
3	0	0		18	3679.574296	1.226524765
4	0	0		18	3661.574296	1.220524765
5	0	0		18	3643.574296	1.214524765
6	0	0		18	3625.574296	1.208524765
7	0	0		18	3607.574296	1.202524765
8	0	0		18	3589.574296	1.196524765
9	0	0		18	3571.574296	1.190524765
10	0	0		18	3553.574296	1.184524765
11	0	0		18	3535.574296	1.178524765
12	0	0		18	3517.574296	1.172524765
13	0	0		18	3499.574296	1.166524765
14	0	0		18	3481.574296	1.160524765
15	0	0		18	3463.574296	1.154524765
16	0	0		18	3445.574296	1.148524765
17	0	0		18	3427.574296	1.142524765
18	0	0		18	3409.574296	1.136524765
19	0	0		18	3391.574296	1.130524765
20	0	0		18	3373.574296	1.124524765
21	0	0		18	3355.574296	1.118524765
22	0	0		18	3337.574296	1.112524765
23	0	0		18	3319.574296	1.106524765
24	0	0		18	3301.574296	1.100524765
25	0	0		18	3283.574296	1.094524765
26	0	0		18	3265.574296	1.088524765
27	0	0		18	3247.574296	1.082524765
28	0	0		18	3229.574296	1.076524765
29	0	0		18	3211.574296	1.070524765
30	0	0		18	3193.574296	1.064524765
31	0	0		18	3175.574296	1.058524765
November						
1	0	0		18	3157.574296	1.052524765
2	0	0		18	3139.574296	1.046524765
3	0	0		18	3121.574296	1.040524765
4	0	0		18	3103.574296	1.034524765
5	0	0		18	3085.574296	1.028524765
6	0	0		18	3067.574296	1.022524765
7	0	0		18	3049.574296	1.016524765
8	0	0		18	3031.574296	1.010524765
9	0	0		18	3013.574296	1.004524765
10	0	0		18	2995.574296	0.998524765

11	0	0		18	2977.574296	0.992524765
12	0	0		18	2959.574296	0.986524765
13	0	0		18	2941.574296	0.980524765
14	0	0		18	2923.574296	0.974524765
15	0	0		18	2905.574296	0.968524765
16	0	0		18	2887.574296	0.962524765
17	0	0		18	2869.574296	0.956524765
18	0	0		18	2851.574296	0.950524765
19	0	0		18	2833.574296	0.944524765
20	0	0		18	2815.574296	0.938524765
21	0	0		18	2797.574296	0.932524765
22	0	0		18	2779.574296	0.926524765
23	0	0		18	2761.574296	0.920524765
24	0	0		18	2743.574296	0.914524765
25	0	0		18	2725.574296	0.908524765
26	0	0		18	2707.574296	0.902524765
27	0	0		18	2689.574296	0.896524765
28	0	0		18	2671.574296	0.890524765
29	0	0		18	2653.574296	0.884524765
30	0	0		18	2635.574296	0.878524765
Desember						
1	0	0		18	2617.574296	0.872524765
2	0	0		18	2599.574296	0.866524765
3	7	97.5018345		18	2679.07613	0.893025377
4	0	0		18	2661.07613	0.887025377
5	0	0		18	2643.07613	0.881025377
6	0	0		18	2625.07613	0.875025377
7	0	0		18	2607.07613	0.869025377
8	0	0		18	2589.07613	0.863025377
9	0	0		18	2571.07613	0.857025377
10	0	0		18	2553.07613	0.851025377
11	0	0		18	2535.07613	0.845025377
12	0	0		18	2517.07613	0.839025377
13	0	0		18	2499.07613	0.833025377
14	0	0		18	2481.07613	0.827025377
15	0	0		18	2463.07613	0.821025377
16	0	0		18	2445.07613	0.815025377
17	20	278.57667		18	2705.6528	0.901884267
18	0	0		18	2687.6528	0.895884267
19	0	0		18	2669.6528	0.889884267
20	0	0		18	2651.6528	0.883884267
21	0	0		18	2633.6528	0.877884267
22	0	0		18	2615.6528	0.871884267
23	0	0		18	2597.6528	0.865884267
24	0	0		18	2579.6528	0.859884267
25	0	0		18	2561.6528	0.853884267
26	0	0		18	2543.6528	0.847884267
27	0	0		18	2525.6528	0.841884267
28	0	0		18	2507.6528	0.835884267
29	50	696.441675		0	3204.094475	1.068031492
30	80	1114.30668		0	4318.401155	1.439467052
31	0	0		0	4318.401155	1.439467052

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS(m3)	tinggi air (m)
1	0	0		18	4536.295882	1.814518353
2	0	0		18	4518.295882	1.807318353
3	22	258.103923		0	4776.399805	1.910559922
4	65	762.579773	1200	0	4338.979577	1.735591831
5	9	105.587969		0	4444.567546	1.777827018
6	15	175.979948		0	4620.547493	1.848218997
7	14	164.247951		0	4784.795444	1.913918178
8	0	0		0	4784.795444	1.913918178
9	0	0		0	4784.795444	1.913918178
10	15	175.979948		0	4960.775392	1.984310157
11	0	0		0	4960.775392	1.984310157
12	0	0		0	4960.775392	1.984310157
13	12	140.783958		0	5101.55935	2.04062374
14	0	0		0	5101.55935	2.04062374
15	0	0		0	5101.55935	2.04062374
16	5	58.6599825		0	5160.219332	2.064087733
17	0	0		0	5160.219332	2.064087733
18	5	58.6599825		0	5218.879315	2.087551726
19	0	0		0	5218.879315	2.087551726
20	8	93.855972		0	5312.735287	2.125094115
21	0	0		0	5312.735287	2.125094115
22	0	0		0	5312.735287	2.125094115
23	0	0		0	5312.735287	2.125094115
24	0	0		18	5294.735287	2.117894115
25	0	0		18	5276.735287	2.110694115
26	0	0		18	5258.735287	2.103494115
27	30	351.959895		0	5610.695182	2.244278073
28	6	70.391979		0	5681.087161	2.272434864
29	5	58.6599825		0	5739.747143	2.295898857
30	0	0		0	5739.747143	2.295898857
31	0	0		0	5739.747143	2.295898857
Februari						
1	5	58.6599825	1200	0	4598.407126	1.83936285
2	10	117.319965	1200	0	3515.727091	1.406290836
3	15	175.979948		0	3691.707038	1.476682815
4	0	0		0	3691.707038	1.476682815
5	0	0		0	3691.707038	1.476682815
6	0	0		0	3691.707038	1.476682815
7	0	0		18	3673.707038	1.469482815
8	0	0		18	3655.707038	1.462282815
9	0	0		18	3637.707038	1.455082815
10	5	58.6599825		0	3696.367021	1.478546808
11	0	0		0	3696.367021	1.478546808
12	10	117.319965		0	3813.686986	1.525474794
13	0	0		0	3813.686986	1.525474794
14	0	0		0	3813.686986	1.525474794
15	40	469.27986		0	4282.966846	1.713186738
16	15	175.979948		0	4458.946793	1.783578717
17	70	821.239755	1200	0	4080.186548	1.632074619
18	14	164.247951		0	4244.434499	1.69777738
19	15	175.979948		0	4420.414447	1.768165779
20	10	117.319965		0	4537.734412	1.815093765
21	40	469.27986		0	5007.014272	2.002805709
22	50	586.599825	1200	0	4393.614097	1.757445639
23	20	234.63993		0	4628.254027	1.851301611
24	0	0		0	4628.254027	1.851301611
25	0	0		0	4628.254027	1.851301611
26	8	93.855972		0	4722.109999	1.888843999
27	0	0		0	4722.109999	1.888843999
28	20	234.63993		0	4956.749929	1.982699971
Maret						
1	14	164.247951		0	5120.99788	2.048399152
2	20	234.63993		0	5355.63781	2.142255124
3	25	293.299913		0	5648.937722	2.259575089
4	30	351.959895	1200	0	4800.897617	1.920359047
5	64	750.847776		0	5551.745393	2.220698157
6	18	211.175937	1200	0	4562.92133	1.825168532
7	0	0		0	4562.92133	1.825168532
8	0	0		0	4562.92133	1.825168532
9	26	305.031909		0	4867.953239	1.947181296

10	58	680.455797	1200	0	4348.409036	1.739363614
11	12	140.783958		0	4489.192994	1.795677198
12	28	328.495902		0	4817.688896	1.927075558
13	56	656.991804	1200	0	4274.6807	1.70987228
14	67	786.043766		0	5060.724466	2.024289786
15	0	0		0	5060.724466	2.024289786
16	3	35.1959895		0	5095.920455	2.038368182
17	4	46.927986		0	5142.848441	2.057139376
18	2	23.463993		0	5166.312434	2.066524974
19	10	117.319965		0	5283.632399	2.11345296
20	0	0		0	5283.632399	2.11345296
21	7	82.1239755		0	5365.756375	2.14630255
22	0	0		0	5365.756375	2.14630255
23	0	0		0	5365.756375	2.14630255
24	0	0		0	5365.756375	2.14630255
25	0	0		18	5347.756375	2.13910255
26	0	0		18	5329.756375	2.13190255
27	0	0		18	5311.756375	2.12470255
28	0	0		18	5293.756375	2.11750255
29	31	363.691892	1200	0	4457.448266	1.782979306
30	19	222.907934		0	4680.3562	1.87214248
31	10	117.319965		0	4797.676165	1.919070466
April						
1	19	222.907934		0	5020.584098	2.008233639
2	20	234.63993		0	5255.224028	2.102089611
3	25	293.299913		0	5548.523941	2.219409576
4	30	351.959895	1200	0	4700.483836	1.880193534
5	60	703.91979	1200	0	4204.403626	1.68176145
6	19	222.907934		0	4427.311559	1.770924624
7	0	0		0	4427.311559	1.770924624
8	0	0		0	4427.311559	1.770924624
9	0	0		0	4427.311559	1.770924624
10	0	0		18	4409.311559	1.763724624
11	0	0		18	4391.311559	1.756524624
12	0	0		18	4373.311559	1.749324624
13	0	0		18	4355.311559	1.742124624
14	0	0		18	4337.311559	1.734924624
15	0	0		18	4319.311559	1.727724624
16	0	0		18	4301.311559	1.720524624
17	0	0		18	4283.311559	1.713324624
18	0	0		18	4265.311559	1.706124624
19	0	0		18	4247.311559	1.698924624
20	0	0		18	4229.311559	1.691724624
21	0	0		18	4211.311559	1.684524624
22	0	0		18	4193.311559	1.677324624
23	0	0		18	4175.311559	1.670124624
24	0	0		18	4157.311559	1.662924624
25	0	0		18	4139.311559	1.655724624
26	0	0		18	4121.311559	1.648524624
27	0	0		18	4103.311559	1.641324624
28	0	0		18	4085.311559	1.634124624
29	0	0		18	4067.311559	1.626924624
30	0	0		18	4049.311559	1.619724624

Mei						
1	0	0		18	4031.311559	1.612524624
2	0	0		18	4013.311559	1.605324624
3	0	0		18	3995.311559	1.598124624
4	0	0		18	3977.311559	1.590924624
5	0	0		18	3959.311559	1.583724624
6	0	0		18	3941.311559	1.576524624
7	0	0		18	3923.311559	1.569324624
8	0	0		18	3905.311559	1.562124624
9	0	0		18	3887.311559	1.554924624
10	0	0		18	3869.311559	1.547724624
11	0	0		18	3851.311559	1.540524624
12	0	0		18	3833.311559	1.533324624
13	0	0		18	3815.311559	1.526124624
14	0	0		18	3797.311559	1.518924624
15	0	0		18	3779.311559	1.511724624
16	0	0		18	3761.311559	1.504524624
17	0	0		18	3743.311559	1.497324624
18	0	0		18	3725.311559	1.490124624
19	0	0		18	3707.311559	1.482924624
20	0	0		18	3689.311559	1.475724624
21	0	0		18	3671.311559	1.468524624
22	0	0		18	3653.311559	1.461324624
23	0	0		18	3635.311559	1.454124624
24	0	0		18	3617.311559	1.446924624
25	0	0		18	3599.311559	1.439724624
26	0	0		18	3581.311559	1.432524624
27	0	0		18	3563.311559	1.425324624
28	0	0		18	3545.311559	1.418124624
29	0	0		18	3527.311559	1.410924624
30	0	0		18	3509.311559	1.403724624
31	0	0		18	3491.311559	1.396524624
Juni						
1	0	0		18	3473.311559	1.389324624
2	0	0		18	3455.311559	1.382124624
3	0	0		18	3437.311559	1.374924624
4	0	0		18	3419.311559	1.367724624
5	0	0		18	3401.311559	1.360524624
6	0	0		18	3383.311559	1.353324624
7	0	0		18	3365.311559	1.346124624
8	0	0		18	3347.311559	1.338924624
9	0	0		18	3329.311559	1.331724624
10	0	0		18	3311.311559	1.324524624
11	0	0		18	3293.311559	1.317324624
12	0	0		18	3275.311559	1.310124624
13	0	0		18	3257.311559	1.302924624
14	0	0		18	3239.311559	1.295724624
15	0	0		18	3221.311559	1.288524624
16	0	0		18	3203.311559	1.281324624
17	0	0		18	3185.311559	1.274124624
18	0	0		18	3167.311559	1.266924624
19	0	0		18	3149.311559	1.259724624
20	0	0		18	3131.311559	1.252524624
21	0	0		18	3113.311559	1.245324624
22	0	0		18	3095.311559	1.238124624
23	0	0		18	3077.311559	1.230924624
24	0	0		18	3059.311559	1.223724624
25	0	0		18	3041.311559	1.216524624
26	0	0		18	3023.311559	1.209324624
27	0	0		18	3005.311559	1.202124624
28	0	0		18	2987.311559	1.194924624
29	0	0		18	2969.311559	1.187724624
30	0	0		18	2951.311559	1.180524624
Juli						
1	0	0		18	2933.311559	1.173324624
2	0	0		18	2915.311559	1.166124624
3	0	0		18	2897.311559	1.158924624
4	0	0		18	2879.311559	1.151724624
5	0	0		18	2861.311559	1.144524624
6	0	0		18	2843.311559	1.137324624
7	0	0		18	2825.311559	1.130124624
8	0	0		18	2807.311559	1.122924624
9	0	0		18	2789.311559	1.115724624
10	0	0		18	2771.311559	1.108524624

11	0	0		18	2753.311559	1.101324624
12	0	0		18	2735.311559	1.094124624
13	0	0		18	2717.311559	1.086924624
14	0	0		18	2699.311559	1.079724624
15	0	0		18	2681.311559	1.072524624
16	0	0		18	2663.311559	1.065324624
17	0	0		18	2645.311559	1.058124624
18	0	0		18	2627.311559	1.050924624
19	0	0		18	2609.311559	1.043724624
20	0	0		18	2591.311559	1.036524624
21	0	0		18	2573.311559	1.029324624
22	0	0		18	2555.311559	1.022124624
23	0	0		18	2537.311559	1.014924624
24	0	0		18	2519.311559	1.007724624
25	0	0		18	2501.311559	1.000524624
26	0	0		18	2483.311559	0.993324624
27	0	0		18	2465.311559	0.986124624
28	0	0		18	2447.311559	0.978924624
29	0	0		18	2429.311559	0.971724624
30	0	0		18	2411.311559	0.964524624
31	0	0		18	2393.311559	0.957324624
Agustus						
1	0	0		18	2375.311559	0.950124624
2	0	0		18	2357.311559	0.942924624
3	0	0		18	2339.311559	0.935724624
4	0	0		18	2321.311559	0.928524624
5	0	0		18	2303.311559	0.921324624
6	0	0		18	2285.311559	0.914124624
7	0	0		18	2267.311559	0.906924624
8	0	0		18	2249.311559	0.899724624
9	0	0		18	2231.311559	0.892524624
10	0	0		18	2213.311559	0.885324624
11	0	0		18	2195.311559	0.878124624
12	0	0		18	2177.311559	0.870924624
13	0	0		18	2159.311559	0.863724624
14	0	0		18	2141.311559	0.856524624
15	0	0		18	2123.311559	0.849324624
16	0	0		18	2105.311559	0.842124624
17	0	0		18	2087.311559	0.834924624
18	0	0		18	2069.311559	0.827724624
19	0	0		18	2051.311559	0.820524624
20	0	0		18	2033.311559	0.813324624
21	0	0		18	2015.311559	0.806124624
22	0	0		18	1997.311559	0.798924624
23	0	0		18	1979.311559	0.791724624
24	0	0		18	1961.311559	0.784524624
25	0	0		18	1943.311559	0.777324624
26	0	0		18	1925.311559	0.770124624
27	0	0		18	1907.311559	0.762924624
28	0	0		18	1889.311559	0.755724624
29	0	0		18	1871.311559	0.748524624
30	0	0		18	1853.311559	0.741324624
31	0	0		18	1835.311559	0.734124624

September						
1	0	0		18	1817.311559	0.726924624
2	0	0		18	1799.311559	0.719724624
3	0	0		18	1781.311559	0.712524624
4	0	0		18	1763.311559	0.705324624
5	0	0		18	1745.311559	0.698124624
6	0	0		18	1727.311559	0.690924624
7	0	0		18	1709.311559	0.683724624
8	0	0		18	1691.311559	0.676524624
9	0	0		18	1673.311559	0.669324624
10	0	0		18	1655.311559	0.662124624
11	0	0		18	1637.311559	0.654924624
12	0	0		18	1619.311559	0.647724624
13	0	0		18	1601.311559	0.640524624
14	0	0		18	1583.311559	0.633324624
15	0	0		18	1565.311559	0.626124624
16	0	0		18	1547.311559	0.618924624
17	0	0		18	1529.311559	0.611724624
18	0	0		18	1511.311559	0.604524624
19	0	0		18	1493.311559	0.597324624
20	0	0		18	1475.311559	0.590124624
21	0	0		18	1457.311559	0.582924624
22	0	0		18	1439.311559	0.575724624
23	0	0		18	1421.311559	0.568524624
24	0	0		18	1403.311559	0.561324624
25	0	0		18	1385.311559	0.554124624
26	0	0		18	1367.311559	0.546924624
27	0	0		18	1349.311559	0.539724624
28	0	0		18	1331.311559	0.532524624
29	0	0		18	1313.311559	0.525324624
30	0	0		18	1295.311559	0.518124624
Oktober						
1	0	0		18	1277.311559	0.510924624
2	0	0		18	1259.311559	0.503724624
3	0	0		18	1241.311559	0.496524624
4	0	0		18	1223.311559	0.489324624
5	0	0		18	1205.311559	0.482124624
6	0	0		18	1187.311559	0.474924624
7	0	0		18	1169.311559	0.467724624
8	0	0		18	1151.311559	0.460524624
9	0	0		18	1133.311559	0.453324624
10	0	0		18	1115.311559	0.446124624
11	0	0		18	1097.311559	0.438924624
12	0	0		18	1079.311559	0.431724624
13	0	0		18	1061.311559	0.424524624
14	0	0		18	1043.311559	0.417324624
15	0	0		18	1025.311559	0.410124624
16	0	0		18	1007.311559	0.402924624
17	0	0		18	989.3115592	0.395724624
18	0	0		18	971.3115592	0.388524624
19	0	0		18	953.3115592	0.381324624
20	0	0		18	935.3115592	0.374124624
21	0	0		18	917.3115592	0.366924624
22	0	0		18	899.3115592	0.359724624
23	0	0		18	881.3115592	0.352524624
24	0	0		18	863.3115592	0.345324624
25	0	0		18	845.3115592	0.338124624
26	0	0		18	827.3115592	0.330924624
27	0	0		18	809.3115592	0.323724624
28	0	0		18	791.3115592	0.316524624
29	0	0		18	773.3115592	0.309324624
30	0	0		18	755.3115592	0.302124624
31	0	0		18	737.3115592	0.294924624
November						
1	0	0		18	719.3115592	0.287724624
2	0	0		18	701.3115592	0.280524624
3	0	0		18	683.3115592	0.273324624
4	0	0		18	665.3115592	0.266124624
5	0	0		18	647.3115592	0.258924624
6	0	0		18	629.3115592	0.251724624
7	0	0		18	611.3115592	0.244524624
8	0	0		18	593.3115592	0.237324624
9	0	0		18	575.3115592	0.230124624
10	0	0		18	557.3115592	0.222924624



11	0	0		18	539.3115592	0.215724624
12	0	0		18	521.3115592	0.208524624
13	0	0		18	503.3115592	0.201324624
14	0	0		18	485.3115592	0.194124624
15	0	0		18	467.3115592	0.186924624
16	12	140.783958		0	608.0955172	0.243238207
17	0	0		0	608.0955172	0.243238207
18	0	0		0	608.0955172	0.243238207
19	5.5	64.5259808		0	672.621498	0.269048599
20	7	82.1239755		0	754.7454735	0.301898189
21	0	0		0	754.7454735	0.301898189
22	0	0		0	754.7454735	0.301898189
23	5	58.6599825		0	813.405456	0.325362182
24	0	0		0	813.405456	0.325362182
25	0	0		0	813.405456	0.325362182
26	14	164.247951		0	977.653407	0.391061363
27	15	175.979948		0	1153.633354	0.461453342
28	0	0		0	1153.633354	0.461453342
29	30	351.959895		0	1505.593249	0.6022373
30	1	11.7319965		0	1517.325246	0.606930098
Desenber						
1	0	0		0	1517.325246	0.606930098
2	1.5	17.5979948		0	1534.923241	0.613969296
3	0	0		0	1534.923241	0.613969296
4	0	0		0	1534.923241	0.613969296
5	22	258.103923		0	1793.027164	0.717210865
6	10	117.319965		0	1910.347129	0.764138851
7	0	0		0	1910.347129	0.764138851
8	25	293.299913		0	2203.647041	0.881458816
9	6	70.391979		0	2274.03902	0.909615608
10	5	58.6599825		0	2332.699003	0.933079601
11	10	117.319965		0	2450.018968	0.980007587
12	15	175.979948		0	2625.998915	1.050399566
13	20	234.63993		0	2860.638845	1.144255538
14	40	469.27986		0	3329.918705	1.331967482
15	20	234.63993		0	3564.558635	1.425823454
16	62	727.383783		0	4291.942418	1.716776967
17	30.5	357.825893	1200	0	3449.768311	1.379907325
18	0	0		0	3449.768311	1.379907325
19	134	1572.08753	1200	0	3821.855842	1.528742337
20	0	0		0	3821.855842	1.528742337
21	13.5	158.381953		0	3980.237795	1.592095118
22	6.5	76.2579773		0	4056.495772	1.622598309
23	8	93.855972		0	4150.351744	1.660140698
24	1.5	17.5979948		0	4167.949739	1.667179896
25	0	0		0	4167.949739	1.667179896
26	12.5	146.649956		0	4314.599695	1.725839878
27	23	269.83592	1200	0	3384.435615	1.353774246
28	11	129.051962		0	3513.487576	1.405395031
29	8	93.855972		0	3607.343548	1.442937419
30	49	574.867829		0	4182.211377	1.672884551
31	0	0		0	4182.211377	1.672884551

## PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	43	573.24		0	7500.00	3.00
2	62	826.53	1300	0	7026.53	2.81
3	86	1146.47	1300	0	6873.00	2.75
4	0	0.00		0	6873.00	2.75
5	0	0.00		0	6873.00	2.75
6	0	0.00		0	6873.00	2.75
7	78	1039.82	1300	0	6612.82	2.65
8	0	0.00		0	6612.82	2.65
9	0	0.00		0	6612.82	2.65
10	26	346.61	1300	0	5659.43	2.26
11	21	279.95		0	5939.38	2.38
12	28	373.27		0	6312.65	2.53
13	10	133.31		0	6445.96	2.58
14	27	359.94		0	6805.90	2.72
15	0	0.00		0	6805.90	2.72
16	26	346.61	1300	0	5852.51	2.34
17	0	0.00		0	5852.51	2.34
18	0	0.00		0	5852.51	2.34
19	0	0.00		0	5852.51	2.34
20	0	0.00		18	5834.51	2.33
21	0	0.00		18	5816.51	2.33
22	0	0.00		18	5798.51	2.32
23	0	0.00		18	5780.51	2.31
24	0	0.00		18	5762.51	2.31
25	0	0.00		18	5744.51	2.30
26	48	639.89	1300	0	5084.40	2.03
27	0	0.00		0	5084.40	2.03
28	9	119.98		0	5204.38	2.08
29	13	173.30		0	5377.68	2.15
30	0	0.00		0	5377.68	2.15
31	30	399.93		0	5777.61	2.31
Februari				108		
1	0	0		0	5777.611956	2.311044782
2	0	0		0	5777.611956	2.311044782
3	18	239.95908	1300	0	4717.571041	1.887028416
4	0	0		0	4717.571041	1.887028416
5	0	0		0	4717.571041	1.887028416
6	0	0		0	4717.571041	1.887028416
7	0	0		18	4699.571041	1.879828416
8	26	346.60757		0	5046.178607	2.018471443
9	47	626.55983	1300	0	4372.738439	1.749095376
10	25	333.27651		0	4706.014945	1.882405978
11	0	0		0	4706.014945	1.882405978
12	0	0		0	4706.014945	1.882405978
13	0	0		0	4706.014945	1.882405978
14	58	773.20149		0	5479.21644	2.191686576
15	0	0		0	5479.21644	2.191686576
16	0	0		0	5479.21644	2.191686576
17	0	0		0	5479.21644	2.191686576
18	0	0		18	5461.21644	2.184486576
19	56	746.53937	1300	0	4907.755814	1.963102325
20	0	0		0	4907.755814	1.963102325
21	3	39.993181		0	4947.748994	1.979099598
22	0	0		0	4947.748994	1.979099598
23	0	0		0	4947.748994	1.979099598
24	20	266.62121		0	5214.370199	2.08574808
25	54	719.87725	1300	0	4634.247453	1.853698981
26	38	506.58029		0	5140.827742	2.056331097
27	0	0		0	5140.827742	2.056331097
28	0	0		0	5140.827742	2.056331097
Maret				36		
1	0	0		0	5140.827742	2.056331097
2	0	0		18	5122.827742	2.049131097
3	19	253.29014		0	5376.117887	2.150447155
4	14	186.63484		0	5562.752731	2.225101092
5	0	0		0	5562.752731	2.225101092
6	10	133.3106		0	5696.063333	2.278425333
7	0	0		0	5696.063333	2.278425333
8	0	0		0	5696.063333	2.278425333
9	0	0		0	5696.063333	2.278425333

10	0	0		18	5678.063333	2.271225333
11	0	0		18	5660.063333	2.264025333
12	0	0		18	5642.063333	2.256825333
13	37	493.24923	1300	0	4835.312562	1.934125025
14	6	79.986362		0	4915.298924	1.96611957
15	0	0		0	4915.298924	1.96611957
16	0	0		0	4915.298924	1.96611957
17	0	0		0	4915.298924	1.96611957
18	0	0		18	4897.298924	1.95891957
19	11	146.64166		0	5043.940587	2.017576235
20	8	106.64848		0	5150.589069	2.060235627
21	0	0		0	5150.589069	2.060235627
22	88	1173.1333	1300	0	5023.722371	2.009488948
23	0	0		0	5023.722371	2.009488948
24	0	0		0	5023.722371	2.009488948
25	0	0		0	5023.722371	2.009488948
26	0	0		18	5005.722371	2.002288948
27	7	93.317422		0	5099.039792	2.039615917
28	0	0		0	5099.039792	2.039615917
29	0	0		0	5099.039792	2.039615917
30	30	399.93181	1300	0	4198.9716	1.67958864
31	0	0		0	4198.9716	1.67958864
April				108		
1	0	0		0	4198.9716	1.67958864
2	0	0		0	4198.9716	1.67958864
3	0	0		18	4180.9716	1.67238864
4	0	0		18	4162.9716	1.66518864
5	15	199.9659		0	4362.937504	1.745175001
6	0	0		0	4362.937504	1.745175001
7	0	0		18	4344.937504	1.737975001
8	20	266.62121		0	4611.558709	1.844623483
9	0	0		0	4611.558709	1.844623483
10	0	0		0	4611.558709	1.844623483
11	0	0		0	4611.558709	1.844623483
12	0	0		18	4593.558709	1.837423483
13	0	0		18	4575.558709	1.830223483
14	0	0		18	4557.558709	1.823023483
15	0	0		18	4539.558709	1.815823483
16	0	0		18	4521.558709	1.808623483
17	0	0		18	4503.558709	1.801423483
18	0	0		18	4485.558709	1.794223483
19	0	0		18	4467.558709	1.787023483
20	34	453.25605		0	4920.814757	1.968325903
21	0	0		0	4920.814757	1.968325903
22	25	333.27651		0	5254.091263	2.101636505
23	0	0		0	5254.091263	2.101636505
24	0	0		0	5254.091263	2.101636505
25	0	0		0	5254.091263	2.101636505
26	30	399.93181		0	5654.023071	2.261609228
27	0	0		0	5654.023071	2.261609228
28	0	0		0	5654.023071	2.261609228
29	0	0		0	5654.023071	2.261609228
30	0	0		18	5636.023071	2.254409228

Mei				216		
1	56	746.53937	1300	0	5082.562445	2.033024978
2	0	0		0	5082.562445	2.033024978
3	0	0		0	5082.562445	2.033024978
4	0	0		0	5082.562445	2.033024978
5	0	0		18	5064.562445	2.025824978
6	0	0		18	5046.562445	2.018624978
7	0	0		18	5028.562445	2.011424978
8	28	373.26969		0	5401.832132	2.160732853
9	0	0		0	5401.832132	2.160732853
10	0	0		0	5401.832132	2.160732853
11	0	0		0	5401.832132	2.160732853
12	0	0		18	5383.832132	2.153532853
13	0	0		18	5365.832132	2.146332853
14	0	0		18	5347.832132	2.139132853
15	5	66.655301		0	5414.487433	2.165794973
16	0	0		0	5414.487433	2.165794973
17	0	0		0	5414.487433	2.165794973
18	0	0		0	5414.487433	2.165794973
19	0	0		18	5396.487433	2.158594973
20	0	0		18	5378.487433	2.151394973
21	0	0		18	5360.487433	2.144194973
22	46	613.22877	1300	0	4673.716205	1.869486482
23	0	0		0	4673.716205	1.869486482
24	0	0		0	4673.716205	1.869486482
25	80	1066.4848		0	5740.201025	2.29608041
26	0	0		0	5740.201025	2.29608041
27	0	0		0	5740.201025	2.29608041
28	0	0		0	5740.201025	2.29608041
29	0	0		18	5722.201025	2.28888041
30	0	0		18	5704.201025	2.28168041
31	0	0		18	5686.201025	2.27448041
Juni				216		
1	0	0		18	5668.201025	2.26728041
2	0	0		18	5650.201025	2.26008041
3	0	0		18	5632.201025	2.25288041
4	0	0		18	5614.201025	2.24568041
5	20	266.62121	1300	0	4580.82223	1.832328892
6	0	0		0	4580.82223	1.832328892
7	0	0		0	4580.82223	1.832328892
8	0	0		0	4580.82223	1.832328892
9	0	0		18	4562.82223	1.825128892
10	0	0		18	4544.82223	1.817928892
11	0	0		18	4526.82223	1.810728892
12	0	0		18	4508.82223	1.803528892
13	5	66.655301		0	4575.477531	1.830191012
14	0	0		0	4575.477531	1.830191012
15	0	0		0	4575.477531	1.830191012
16	0	0		0	4575.477531	1.830191012
17	0	0		18	4557.477531	1.822991012
18	0	0		0	4557.477531	1.822991012
19	0	0		18	4539.477531	1.815791012
20	0	0		18	4521.477531	1.808591012
21	0	0		18	4503.477531	1.801391012
22	0	0		18	4485.477531	1.794191012
23	0	0		18	4467.477531	1.786991012
24	0	0		18	4449.477531	1.779791012
25	0	0		18	4431.477531	1.772591012
26	0	0		18	4413.477531	1.765391012
27	0	0		18	4395.477531	1.758191012
28	0	0		18	4377.477531	1.750991012
29	0	0		18	4359.477531	1.743791012
30	0	0		18	4341.477531	1.736591012
Juli				378		
1	0	0		18	4323.477531	1.729391012
2	0	0		18	4305.477531	1.722191012
3	0	0		18	4287.477531	1.714991012
4	0	0		18	4269.477531	1.707791012
5	0	0		18	4251.477531	1.700591012
6	0	0		18	4233.477531	1.693391012
7	0	0		18	4215.477531	1.686191012
8	0	0		18	4197.477531	1.678991012
9	0	0		18	4179.477531	1.671791012
10	0	0		18	4161.477531	1.664591012

11	0	0		18	4143.477531	1.657391012
12	0	0		18	4125.477531	1.650191012
13	0	0		18	4107.477531	1.642991012
14	0	0		18	4089.477531	1.635791012
15	0	0		18	4071.477531	1.628591012
16	0	0		18	4053.477531	1.621391012
17	0	0		18	4035.477531	1.614191012
18	0	0		18	4017.477531	1.606991012
19	0	0		18	3999.477531	1.599791012
20	0	0		18	3981.477531	1.592591012
21	0	0		18	3963.477531	1.585391012
22	0	0		18	3945.477531	1.578191012
23	0	0		18	3927.477531	1.570991012
24	0	0		18	3909.477531	1.563791012
25	0	0		18	3891.477531	1.556591012
26	0	0		18	3873.477531	1.549391012
27	0	0		18	3855.477531	1.542191012
28	0	0		18	3837.477531	1.534991012
29	0	0		18	3819.477531	1.527791012
30	0	0		18	3801.477531	1.520591012
31	0	0		18	3783.477531	1.513391012
Agustus				558		
1	0	0		18	3765.477531	1.506191012
2	0	0		18	3747.477531	1.498991012
3	0	0		18	3729.477531	1.491791012
4	0	0		18	3711.477531	1.484591012
5	0	0		18	3693.477531	1.477391012
6	0	0		18	3675.477531	1.470191012
7	0	0		18	3657.477531	1.462991012
8	0	0		18	3639.477531	1.455791012
9	0	0		18	3621.477531	1.448591012
10	0	0		18	3603.477531	1.441391012
11	0	0		18	3585.477531	1.434191012
12	0	0		18	3567.477531	1.426991012
13	0	0		18	3549.477531	1.419791012
14	0	0		18	3531.477531	1.412591012
15	0	0		18	3513.477531	1.405391012
16	0	0		18	3495.477531	1.398191012
17	0	0		18	3477.477531	1.390991012
18	0	0		18	3459.477531	1.383791012
19	0	0		18	3441.477531	1.376591012
20	0	0		18	3423.477531	1.369391012
21	0	0		18	3405.477531	1.362191012
22	0	0		18	3387.477531	1.354991012
23	0	0		18	3369.477531	1.347791012
24	0	0		18	3351.477531	1.340591012
25	0	0		18	3333.477531	1.333391012
26	0	0		18	3315.477531	1.326191012
27	0	0		18	3297.477531	1.318991012
28	0	0		18	3279.477531	1.311791012
29	0	0		18	3261.477531	1.304591012
30	0	0		18	3243.477531	1.297391012
31	0	0		18	3225.477531	1.290191012

September				558		
1	0	0		18	3207.477531	1.282991012
2	0	0		18	3189.477531	1.275791012
3	0	0		18	3171.477531	1.268591012
4	0	0		18	3153.477531	1.261391012
5	0	0		18	3135.477531	1.254191012
6	0	0		18	3117.477531	1.246991012
7	0	0		18	3099.477531	1.239791012
8	0	0		18	3081.477531	1.232591012
9	0	0		18	3063.477531	1.225391012
10	0	0		18	3045.477531	1.218191012
11	0	0		18	3027.477531	1.210991012
12	0	0		18	3009.477531	1.203791012
13	0	0		18	2991.477531	1.196591012
14	0	0		18	2973.477531	1.189391012
15	0	0		18	2955.477531	1.182191012
16	0	0		18	2937.477531	1.174991012
17	0	0		18	2919.477531	1.167791012
18	0	0		18	2901.477531	1.160591012
19	0	0		18	2883.477531	1.153391012
20	0	0		18	2865.477531	1.146191012
21	0	0		18	2847.477531	1.138991012
22	0	0		18	2829.477531	1.131791012
23	0	0		18	2811.477531	1.124591012
24	0	0		18	2793.477531	1.117391012
25	0	0		18	2775.477531	1.110191012
26	0	0		18	2757.477531	1.102991012
27	0	0		18	2739.477531	1.095791012
28	0	0		18	2721.477531	1.088591012
29	0	0		18	2703.477531	1.081391012
30	0	0		18	2685.477531	1.074191012
Oktober				540		
1	0	0		18	2667.477531	1.066991012
2	0	0		18	2649.477531	1.059791012
3	0	0		18	2631.477531	1.052591012
4	0	0		18	2613.477531	1.045391012
5	0	0		18	2595.477531	1.038191012
6	0	0		18	2577.477531	1.030991012
7	0	0		18	2559.477531	1.023791012
8	0	0		18	2541.477531	1.016591012
9	0	0		18	2523.477531	1.009391012
10	0	0		18	2505.477531	1.002191012
11	0	0		18	2487.477531	0.994991012
12	0	0		18	2469.477531	0.987791012
13	0	0		18	2451.477531	0.980591012
14	0	0		18	2433.477531	0.973391012
15	0	0		18	2415.477531	0.966191012
16	0	0		18	2397.477531	0.958991012
17	0	0		18	2379.477531	0.951791012
18	3	39.993181		18	2401.470712	0.960588285
19	0	0		18	2383.470712	0.953388285
20	6	79.986362		18	2445.457073	0.978182829
21	0	0		18	2427.457073	0.970982829
22	0	0		18	2409.457073	0.963782829
23	0	0		18	2391.457073	0.956582829
24	0	0		18	2373.457073	0.949382829
25	0	0		18	2355.457073	0.942182829
26	14	186.63484		0	2542.091917	1.016836767
27	0	0		0	2542.091917	1.016836767
28	0	0		0	2542.091917	1.016836767
29	20	266.62121		0	2808.713122	1.123485249
30	29	386.60075		0	3195.313869	1.278125548
31	6	79.986362		0	3275.30023	1.310120092
November				450		
1	12	159.97272		0	3435.272953	1.374109181
2	7	93.317422		0	3528.590375	1.41143615
3	0	0		0	3528.590375	1.41143615
4	0	0		0	3528.590375	1.41143615
5	0	0		0	3528.590375	1.41143615
6	30	399.93181		0	3928.522183	1.571408873
7	0	0		0	3928.522183	1.571408873
8	2	26.662121		0	3955.184303	1.582073721
9	5	66.655301		0	4021.839604	1.608735842
10	13	173.30378		0	4195.143388	1.678057355

11	0	0		0	4195.143388	1.678057355
12	0	0		0	4195.143388	1.678057355
13	20	266.62121		0	4461.764593	1.784705837
14	0	0		0	4461.764593	1.784705837
15	0	0		0	4461.764593	1.784705837
16	0	0		0	4461.764593	1.784705837
17	0	0		18	4443.764593	1.777505837
18	4	53.324241		0	4497.088834	1.798835533
19	0	0		0	4497.088834	1.798835533
20	0	0		0	4497.088834	1.798835533
21	10	133.3106		0	4630.399436	1.852159774
22	0	0		0	4630.399436	1.852159774
23	0	0		0	4630.399436	1.852159774
24	2	26.662121		0	4657.061557	1.862824623
25	0	0		0	4657.061557	1.862824623
26	0	0		0	4657.061557	1.862824623
27	20	266.62121		0	4923.682762	1.969473105
28	0	0		0	4923.682762	1.969473105
29	0	0		0	4923.682762	1.969473105
30	0	0		0	4923.682762	1.969473105
Desember				18		
1	0	0		18	4905.682762	1.962273105
2	0	0		18	4887.682762	1.955073105
3	0	0		18	4869.682762	1.947873105
4	0	0		18	4851.682762	1.940673105
5	0	0		18	4833.682762	1.933473105
6	0	0		18	4815.682762	1.926273105
7	0	0		18	4797.682762	1.919073105
8	0	0		18	4779.682762	1.911873105
9	0	0		18	4761.682762	1.904673105
10	0	0		18	4743.682762	1.897473105
11	0	0		18	4725.682762	1.890273105
12	21	279.95227		0	5005.635027	2.002254011
13	12	159.97272		0	5165.60775	2.0662431
14	19	253.29014		0	5418.897895	2.167559158
15	0	0		0	5418.897895	2.167559158
16	0	0		0	5418.897895	2.167559158
17	35	466.58711	1300	0	4585.485003	1.834194001
18	80	1066.4848		0	5651.969823	2.260787929
19	75	999.82952	1300	0	5351.799342	2.140719737
20	12	159.97272		0	5511.772065	2.204708826
21	10	133.3106		0	5645.082668	2.258033067
22	9	119.97954	1300	0	4465.06221	1.786024884
23	0	0		0	4465.06221	1.786024884
24	0	0		0	4465.06221	1.786024884
25	0	0		0	4465.06221	1.786024884
26	0	0		18	4447.06221	1.778824884
27	32	426.59393		0	4873.656138	1.949462455
28	0	0		0	4873.656138	1.949462455
29	0	0		0	4873.656138	1.949462455
30	0	0		0	4873.656138	1.949462455
31	0	0		18	4855.656138	1.942262455

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O	Vol O(m3)	DS(m3)	tinggi air (m)
1	20	266.621205		0	5122.277343	2.048910937
2	0	0		0	5122.277343	2.048910937
3	0	0		0	5122.277343	2.048910937
4	0	0		0	5122.277343	2.048910937
5	0	0		18	5104.277343	2.041710937
6	0	0		18	5086.277343	2.034510937
7	0	0		18	5068.277343	2.027310937
8	0	0		18	5050.277343	2.020110937
9	10	133.3106025		0	5183.587945	2.073435178
10	0	0		0	5183.587945	2.073435178
11	0	0		0	5183.587945	2.073435178
12	0	0		0	5183.587945	2.073435178
13	0	0		18	5165.587945	2.066235178
14	0	0		18	5147.587945	2.059035178
15	46	613.2287715		0	5760.816717	2.304326687
16	0	0		0	5760.816717	2.304326687
17	13	173.3037833	1300	0	4634.1205	1.8536482
18	0	0		0	4634.1205	1.8536482
19	0	0		0	4634.1205	1.8536482
20	0	0		0	4634.1205	1.8536482
21	35	466.5871088		0	5100.707609	2.040283044
22	49	653.2219523		0	5753.929561	2.301571824
23	4	53.324241		0	5807.253802	2.322901521
24	0	0		0	5807.253802	2.322901521
25	3	39.99318075		0	5847.246983	2.338898793
26	6	79.9863615		0	5927.233344	2.370893338
27	0	0		0	5927.233344	2.370893338
28	0	0		0	5927.233344	2.370893338
29	25	333.2765063		0	6260.509851	2.50420394
30	0	0		0	6260.509851	2.50420394
31	12	159.972723	1300	0	5120.482574	2.048193029
Februari						
1	0	0		0	5120.482574	2.048193029
2	45	599.8977113		0	5720.380285	2.288152114
3	34	453.2560485		0	6173.636333	2.469454533
4	0	0		0	6173.636333	2.469454533
5	0	0		0	6173.636333	2.469454533
6	0	0		0	6173.636333	2.469454533
7	50	666.5530125	1300	0	5540.189346	2.216075738
8	0	0		0	5540.189346	2.216075738
9	5	66.65530125		0	5606.844647	2.242737859
10	0	0		0	5606.844647	2.242737859
11	0	0		0	5606.844647	2.242737859
12	17	226.6280243		0	5833.472671	2.333389069
13	0	0		0	5833.472671	2.333389069
14	0	0		0	5833.472671	2.333389069
15	0	0		0	5833.472671	2.333389069
16	0	0		18	5815.472671	2.326189069
17	0	0		18	5797.472671	2.318989069
18	0	0		18	5779.472671	2.311789069
19	17	226.6280243		0	6006.100696	2.402440278
20	3	39.99318075		0	6046.093876	2.418437551
21	5	66.65530125		0	6112.749178	2.445099671
22	0	0		0	6112.749178	2.445099671
23	0	0		0	6112.749178	2.445099671
24	0	0		0	6112.749178	2.445099671
25	49	653.2219523		0	6765.97113	2.706388452
26	0	0		0	6765.97113	2.706388452
27	5	66.65530125		0	6832.626431	2.733050572
28	56	746.539374	1300	0	6279.165805	2.511666322
Maret						
1	51	679.8840728		0	6959.049878	2.783619951
2	82	1093.146941	1300	0	6752.196818	2.700878727
3	6	79.9863615		0	6832.18318	2.732873272
4	40	533.24241	1300	0	6065.42559	2.426170236
5	0	0		0	6065.42559	2.426170236
6	7	93.31742175		0	6158.743012	2.463497205
7	12	159.972723		0	6318.715735	2.527486294
8	0	0		0	6318.715735	2.527486294
9	0	0		0	6318.715735	2.527486294



10	8	106.648482		0	6425.364217	2.570145687
11	0	0		0	6425.364217	2.570145687
12	8	106.648482		0	6532.012699	2.612805079
13	0	0		0	6532.012699	2.612805079
14	0	0		0	6532.012699	2.612805079
15	23	306.6143858		0	6838.627084	2.735450834
16	0	0		0	6838.627084	2.735450834
17	0	0		0	6838.627084	2.735450834
18	0	0		0	6838.627084	2.735450834
19	12	159.972723		0	6998.599807	2.799439923
20	33	439.9249883		0	7438.524796	2.975409918
21	0	0		0	7438.524796	2.975409918
22	36	479.918169	1300	0	6618.442965	2.647377186
23	24	319.945446		0	6938.388411	2.775355364
24	79	1053.15376	1300	0	6691.54217	2.676616868
25	0	0		0	6691.54217	2.676616868
26	0	0		0	6691.54217	2.676616868
27	6	79.9863615		0	6771.528532	2.708611413
28	26	346.6075665	1300	0	5818.136098	2.327254439
29	0	0		0	5818.136098	2.327254439
30	0	0		0	5818.136098	2.327254439
31	0	0		0	5818.136098	2.327254439
April						
1	0	0		18	5800.136098	2.320054439
2	86	1146.471182		0	6946.60728	2.778642912
3	0	0		0	6946.60728	2.778642912
4	30	399.9318075	1300	0	6046.539087	2.418615635
5	0	0		0	6046.539087	2.418615635
6	0	0		0	6046.539087	2.418615635
7	39	519.9113498		0	6566.450437	2.626580175
8	4	53.324241		0	6619.774678	2.647909871
9	0	0		0	6619.774678	2.647909871
10	0	0		0	6619.774678	2.647909871
11	0	0		0	6619.774678	2.647909871
12	0	0		18	6601.774678	2.640709871
13	0	0		18	6583.774678	2.633509871
14	0	0		18	6565.774678	2.626309871
15	40	533.24241		0	7099.017088	2.839606835
16	70	933.1742175	1300	0	6732.191306	2.692876522
17	89	1186.464362	1300	0	6618.655668	2.647462267
18	0	0		0	6618.655668	2.647462267
19	0	0		0	6618.655668	2.647462267
20	0	0		0	6618.655668	2.647462267
21	0	0		18	6600.655668	2.640262267
22	0	0		18	6582.655668	2.633062267
23	0	0		18	6564.655668	2.625862267
24	60	799.863615	1300	0	6064.519283	2.425807713
25	2	26.6621205		0	6091.181403	2.436472561
26	0	0		0	6091.181403	2.436472561
27	0	0		0	6091.181403	2.436472561
28	0	0		0	6091.181403	2.436472561
29	0	0		18	6073.181403	2.429272561
30	0	0		18	6055.181403	2.422072561

Mei						
1	0	0		18	6037.181403	2.414872561
2	0	0		18	6019.181403	2.407672561
3	6	79.9863615		0	6099.167765	2.439667106
4	0	0		0	6099.167765	2.439667106
5	0	0		0	6099.167765	2.439667106
6	0	0		0	6099.167765	2.439667106
7	0	0		18	6081.167765	2.432467106
8	0	0		18	6063.167765	2.425267106
9	0	0		18	6045.167765	2.418067106
10	0	0		18	6027.167765	2.410867106
11	0	0		18	6009.167765	2.403667106
12	0	0		18	5991.167765	2.396467106
13	0	0		18	5973.167765	2.389267106
14	0	0		18	5955.167765	2.382067106
15	0	0		18	5937.167765	2.374867106
16	0	0		18	5919.167765	2.367667106
17	0	0		18	5901.167765	2.360467106
18	0	0		18	5883.167765	2.353267106
19	0	0		18	5865.167765	2.346067106
20	0	0		18	5847.167765	2.338867106
21	0	0		18	5829.167765	2.331667106
22	0	0		18	5811.167765	2.324467106
23	0	0		18	5793.167765	2.317267106
24	0	0		18	5775.167765	2.310067106
25	0	0		18	5757.167765	2.302867106
26	23	306.6143858		0	6063.782151	2.42551286
27	0	0		0	6063.782151	2.42551286
28	0	0		0	6063.782151	2.42551286
29	0	0		0	6063.782151	2.42551286
30	0	0		18	6045.782151	2.41831286
31	0	0		18	6027.782151	2.41111286
Juni						
1	0	0		18	6009.782151	2.40391286
2	0	0		18	5991.782151	2.39671286
3	0	0		18	5973.782151	2.38951286
4	24	319.945446		0	6293.727597	2.517491039
5	0	0		0	6293.727597	2.517491039
6	0	0		0	6293.727597	2.517491039
7	6	79.9863615		0	6373.713958	2.549485583
8	0	0		0	6373.713958	2.549485583
9	0	0		0	6373.713958	2.549485583
10	0	0		0	6373.713958	2.549485583
11	25	333.2765063		0	6706.990464	2.682796186
12	22	293.2833255		0	7000.27379	2.800109516
13	0	0		0	7000.27379	2.800109516
14	11	146.6416628		0	7146.915453	2.858766181
15	0	0		0	7146.915453	2.858766181
16	0	0		0	7146.915453	2.858766181
17	0	0		0	7146.915453	2.858766181
18	0	0		18	7128.915453	2.851566181
19	0	0		18	7110.915453	2.844366181
20	0	0		18	7092.915453	2.837166181
21	0	0		18	7074.915453	2.829966181
22	0	0		18	7056.915453	2.822766181
23	0	0		18	7038.915453	2.815566181
24	4	53.324241		0	7092.239694	2.836895877
25	0	0		0	7092.239694	2.836895877
26	0	0		0	7092.239694	2.836895877
27	0	0		0	7092.239694	2.836895877
28	0	0		18	7074.239694	2.829695877
29	0	0		18	7056.239694	2.822495877
30	0	0		18	7038.239694	2.815295877
Juli						
1	0	0		18	7020.239694	2.808095877
2	0	0		18	7002.239694	2.800895877
3	0	0		18	6984.239694	2.793695877
4	0	0		18	6966.239694	2.786495877
5	0	0		18	6948.239694	2.779295877
6	0	0		18	6930.239694	2.772095877
7	0	0		18	6912.239694	2.764895877
8	0	0		18	6894.239694	2.757695877
9	0	0		18	6876.239694	2.750495877
10	0	0		18	6858.239694	2.743295877

11	0	0		18	6840.239694	2.736095877
12	22	293.2833255		0	7133.523019	2.853409208
13	42	559.9045305	1300	0	6393.42755	2.55737102
14	0	0		0	6393.42755	2.55737102
15	0	0		0	6393.42755	2.55737102
16	0	0		0	6393.42755	2.55737102
17	0	0		18	6375.42755	2.55017102
18	0	0		18	6357.42755	2.54297102
19	0	0		18	6339.42755	2.53577102
20	6	79.9863615		0	6419.413911	2.567765564
21	0	0		0	6419.413911	2.567765564
22	0	0		0	6419.413911	2.567765564
23	0	0		0	6419.413911	2.567765564
24	0	0		18	6401.413911	2.560565564
25	0	0		18	6383.413911	2.553365564
26	0	0		18	6365.413911	2.546165564
27	0	0		18	6347.413911	2.538965564
28	0	0		18	6329.413911	2.531765564
29	0	0		18	6311.413911	2.524565564
30	0	0		18	6293.413911	2.517365564
31	0	0		18	6275.413911	2.510165564
Agustus						
1	0	0		18	6257.413911	2.502965564
2	0	0		18	6239.413911	2.495765564
3	0	0		18	6221.413911	2.488565564
4	0	0		18	6203.413911	2.481365564
5	0	0		18	6185.413911	2.474165564
6	0	0		18	6167.413911	2.466965564
7	0	0		18	6149.413911	2.459765564
8	0	0		18	6131.413911	2.452565564
9	0	0		18	6113.413911	2.445365564
10	0	0		18	6095.413911	2.438165564
11	0	0		18	6077.413911	2.430965564
12	0	0		18	6059.413911	2.423765564
13	0	0		18	6041.413911	2.416565564
14	0	0		18	6023.413911	2.409365564
15	0	0		18	6005.413911	2.402165564
16	0	0		18	5987.413911	2.394965564
17	0	0		18	5969.413911	2.387765564
18	0	0		18	5951.413911	2.380565564
19	0	0		18	5933.413911	2.373365564
20	0	0		18	5915.413911	2.366165564
21	0	0		18	5897.413911	2.358965564
22	0	0		18	5879.413911	2.351765564
23	0	0		18	5861.413911	2.344565564
24	0	0		18	5843.413911	2.337365564
25	0	0		18	5825.413911	2.330165564
26	0	0		18	5807.413911	2.322965564
27	0	0		18	5789.413911	2.315765564
28	0	0		18	5771.413911	2.308565564
29	0	0		18	5753.413911	2.301365564
30	0	0		18	5735.413911	2.294165564
31	0	0		18	5717.413911	2.286965564

September						
1	0	0		18	5699.413911	2.279765564
2	0	0		18	5681.413911	2.272565564
3	0	0		18	5663.413911	2.265365564
4	0	0		18	5645.413911	2.258165564
5	0	0		18	5627.413911	2.250965564
6	0	0		18	5609.413911	2.243765564
7	0	0		18	5591.413911	2.236565564
8	0	0		18	5573.413911	2.229365564
9	0	0		18	5555.413911	2.222165564
10	0	0		18	5537.413911	2.214965564
11	0	0		18	5519.413911	2.207765564
12	0	0		18	5501.413911	2.200565564
13	0	0		18	5483.413911	2.193365564
14	0	0		18	5465.413911	2.186165564
15	0	0		18	5447.413911	2.178965564
16	0	0		18	5429.413911	2.171765564
17	0	0		18	5411.413911	2.164565564
18	0	0		18	5393.413911	2.157365564
19	0	0		18	5375.413911	2.150165564
20	0	0		18	5357.413911	2.142965564
21	0	0		18	5339.413911	2.135765564
22	0	0		18	5321.413911	2.128565564
23	0	0		18	5303.413911	2.121365564
24	0	0		18	5285.413911	2.114165564
25	0	0		18	5267.413911	2.106965564
26	0	0		18	5249.413911	2.099765564
27	0	0		18	5231.413911	2.092565564
28	0	0		18	5213.413911	2.085365564
29	0	0		18	5195.413911	2.078165564
30	0	0		18	5177.413911	2.070965564
Oktober						
1	0	0		18	5159.413911	2.063765564
2	0	0		18	5141.413911	2.056565564
3	0	0		18	5123.413911	2.049365564
4	0	0		18	5105.413911	2.042165564
5	64	853.187856		0	5958.601767	2.383440707
6	10	133.3106025		0	6091.91237	2.436764948
7	0	0		0	6091.91237	2.436764948
8	0	0		0	6091.91237	2.436764948
9	20	266.621205		0	6358.533575	2.54341343
10	2	26.6621205		0	6385.195695	2.554078278
11	0	0		0	6385.195695	2.554078278
12	0	0		0	6385.195695	2.554078278
13	0	0		0	6385.195695	2.554078278
14	8	106.648482		0	6491.844177	2.596737671
15	0	0		0	6491.844177	2.596737671
16	0	0		0	6491.844177	2.596737671
17	0	0		0	6491.844177	2.596737671
18	0	0		18	6473.844177	2.589537671
19	0	0		18	6455.844177	2.582337671
20	0	0		18	6437.844177	2.575137671
21	2	26.6621205		0	6464.506298	2.585802519
22	0	0		0	6464.506298	2.585802519
23	0	0		0	6464.506298	2.585802519
24	0	0		0	6464.506298	2.585802519
25	37	493.2492293		0	6957.755527	2.783102211
26	0	0		0	6957.755527	2.783102211
27	0	0		0	6957.755527	2.783102211
28	0	0		0	6957.755527	2.783102211
29	0	0		18	6939.755527	2.775902211
30	0	0		18	6921.755527	2.768702211
31	0	0		18	6903.755527	2.761502211
November						
1	0	0		18	6885.755527	2.754302211
2	0	0		18	6867.755527	2.747102211
3	0	0		18	6849.755527	2.739902211
4	0	0		18	6831.755527	2.732702211
5	27	359.9386268		0	7191.694154	2.876677661
6	0	0		0	7191.694154	2.876677661
7	17	226.6280243		0	7418.322178	2.967328871
8	0	0		0	7418.322178	2.967328871
9	0	0		0	7418.322178	2.967328871
10	42	559.9045305	1300	0	6678.226708	2.671290683

11	0	0		0	6678.226708	2.671290683
12	0	0		0	6678.226708	2.671290683
13	0	0		0	6678.226708	2.671290683
14	0	0		18	6660.226708	2.664090683
15	13	173.3037833		0	6833.530492	2.733412197
16	8	106.648482		0	6940.178974	2.776071589
17	0	0		0	6940.178974	2.776071589
18	38	506.5802895		0	7446.759263	2.978703705
19	0	0		0	7446.759263	2.978703705
20	3	39.99318075		0	7486.752444	2.994700978
21	0	0		0	7486.752444	2.994700978
22	0	0		0	7486.752444	2.994700978
23	0	0		0	7486.752444	2.994700978
24	8	106.648482	1300	0	6293.400926	2.51736037
25	40	533.24241	1300	0	5526.643336	2.210657334
26	0	0		0	5526.643336	2.210657334
27	29	386.6007473		0	5913.244083	2.365297633
28	5	66.65530125		0	5979.899384	2.391959754
29	0	0		0	5979.899384	2.391959754
30	3	39.99318075		0	6019.892565	2.407957026
Desember						
1	0	0		0	6019.892565	2.407957026
2	0	0		0	6019.892565	2.407957026
3	0	0		0	6019.892565	2.407957026
4	0	0		18	6001.892565	2.400757026
5	27	359.9386268	1300	0	5061.831192	2.024732477
6	0	0		0	5061.831192	2.024732477
7	17	226.6280243		0	5288.459216	2.115383686
8	0	0		0	5288.459216	2.115383686
9	0	0		0	5288.459216	2.115383686
10	42	559.9045305	1300	0	4548.363747	1.819345499
11	0	0		0	4548.363747	1.819345499
12	0	0		0	4548.363747	1.819345499
13	0	0		0	4548.363747	1.819345499
14	0	0		18	4530.363747	1.812145499
15	13	173.3037833		0	4703.66753	1.881467012
16	8	106.648482		0	4810.316012	1.924126405
17	0	0		0	4810.316012	1.924126405
18	38	506.5802895		0	5316.896301	2.126758521
19	0	0		0	5316.896301	2.126758521
20	3	39.99318075		0	5356.889482	2.142755793
21	0	0		0	5356.889482	2.142755793
22	0	0		0	5356.889482	2.142755793
23	0	0		0	5356.889482	2.142755793
24	8	106.648482		0	5463.537964	2.185415186
25	40	533.24241	1300	0	4696.780374	1.87871215
26	0	0		0	4696.780374	1.87871215
27	29	386.6007473	1300	0	3783.381121	1.513352449
28	5	66.65530125		0	3850.036423	1.540014569
29	0	0		0	3850.036423	1.540014569
30	3	39.99318075		0	3890.029603	1.556011841
31	31	413.2628678		0	4303.292471	1.721316988

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O	Vol O(m3)	DS(m3)	tinggi air (m)
1	20	266.621205		0	5122.277343	2.048910937
2	0	0		0	5122.277343	2.048910937
3	0	0		0	5122.277343	2.048910937
4	0	0		0	5122.277343	2.048910937
5	0	0		18	5104.277343	2.041710937
6	0	0		18	5086.277343	2.034510937
7	0	0		18	5068.277343	2.027310937
8	0	0		18	5050.277343	2.020110937
9	10	133.3106025		0	5183.587945	2.073435178
10	0	0		0	5183.587945	2.073435178
11	0	0		0	5183.587945	2.073435178
12	0	0		0	5183.587945	2.073435178
13	0	0		18	5165.587945	2.066235178
14	0	0		18	5147.587945	2.059035178
15	46	613.2287715		0	5760.816717	2.304326687
16	0	0		0	5760.816717	2.304326687
17	13	173.3037833	1300	0	4634.1205	1.8536482
18	0	0		0	4634.1205	1.8536482
19	0	0		0	4634.1205	1.8536482
20	0	0		0	4634.1205	1.8536482
21	35	466.5871088		0	5100.707609	2.040283044
22	49	653.2219523		0	5753.929561	2.301571824
23	4	53.324241		0	5807.253802	2.322901521
24	0	0		0	5807.253802	2.322901521
25	3	39.99318075		0	5847.246983	2.338898793
26	6	79.9863615		0	5927.233344	2.370893338
27	0	0		0	5927.233344	2.370893338
28	0	0		0	5927.233344	2.370893338
29	25	333.2765063		0	6260.509851	2.50420394
30	0	0		0	6260.509851	2.50420394
31	12	159.972723	1300	0	5120.482574	2.048193029
Februari						
1	0	0		0	5120.482574	2.048193029
2	45	599.8977113		0	5720.380285	2.288152114
3	34	453.2560485		0	6173.636333	2.469454533
4	0	0		0	6173.636333	2.469454533
5	0	0		0	6173.636333	2.469454533
6	0	0		0	6173.636333	2.469454533
7	50	666.5530125	1300	0	5540.189346	2.216075738
8	0	0		0	5540.189346	2.216075738
9	5	66.65530125		0	5606.844647	2.242737859
10	0	0		0	5606.844647	2.242737859
11	0	0		0	5606.844647	2.242737859
12	17	226.6280243		0	5833.472671	2.333389069
13	0	0		0	5833.472671	2.333389069
14	0	0		0	5833.472671	2.333389069
15	0	0		0	5833.472671	2.333389069
16	0	0		18	5815.472671	2.326189069
17	0	0		18	5797.472671	2.318989069
18	0	0		18	5779.472671	2.311789069
19	17	226.6280243		0	6006.100696	2.402440278
20	3	39.99318075		0	6046.093876	2.418437551
21	5	66.65530125		0	6112.749178	2.445099671
22	0	0		0	6112.749178	2.445099671
23	0	0		0	6112.749178	2.445099671
24	0	0		0	6112.749178	2.445099671
25	49	653.2219523		0	6765.97113	2.706388452
26	0	0		0	6765.97113	2.706388452
27	5	66.65530125		0	6832.626431	2.733050572
28	56	746.539374	1300	0	6279.165805	2.511666322
Maret						
1	51	679.8840728		0	6959.049878	2.783619951
2	82	1093.146941	1300	0	6752.196818	2.700878727
3	6	79.9863615		0	6832.18318	2.732873272
4	40	533.24241	1300	0	6065.42559	2.426170236
5	0	0		0	6065.42559	2.426170236
6	7	93.31742175		0	6158.743012	2.463497205
7	12	159.972723		0	6318.715735	2.527486294
8	0	0		0	6318.715735	2.527486294
9	0	0		0	6318.715735	2.527486294

10	8	106.648482		0	6425.364217	2.570145687
11	0	0		0	6425.364217	2.570145687
12	8	106.648482		0	6532.012699	2.612805079
13	0	0		0	6532.012699	2.612805079
14	0	0		0	6532.012699	2.612805079
15	23	306.6143858		0	6838.627084	2.735450834
16	0	0		0	6838.627084	2.735450834
17	0	0		0	6838.627084	2.735450834
18	0	0		0	6838.627084	2.735450834
19	12	159.972723		0	6998.599807	2.799439923
20	33	439.9249883		0	7438.524796	2.975409918
21	0	0		0	7438.524796	2.975409918
22	36	479.918169	1300	0	6618.442965	2.647377186
23	24	319.945446		0	6938.388411	2.775355364
24	79	1053.15376	1300	0	6691.54217	2.676616868
25	0	0		0	6691.54217	2.676616868
26	0	0		0	6691.54217	2.676616868
27	6	79.9863615		0	6771.528532	2.708611413
28	26	346.6075665	1300	0	5818.136098	2.327254439
29	0	0		0	5818.136098	2.327254439
30	0	0		0	5818.136098	2.327254439
31	0	0		0	5818.136098	2.327254439
April						
1	0	0		18	5800.136098	2.320054439
2	86	1146.471182		0	6946.60728	2.778642912
3	0	0		0	6946.60728	2.778642912
4	30	399.9318075	1300	0	6046.539087	2.418615635
5	0	0		0	6046.539087	2.418615635
6	0	0		0	6046.539087	2.418615635
7	39	519.9113498		0	6566.450437	2.626580175
8	4	53.324241		0	6619.774678	2.647909871
9	0	0		0	6619.774678	2.647909871
10	0	0		0	6619.774678	2.647909871
11	0	0		0	6619.774678	2.647909871
12	0	0		18	6601.774678	2.640709871
13	0	0		18	6583.774678	2.633509871
14	0	0		18	6565.774678	2.626309871
15	40	533.24241		0	7099.017088	2.839606835
16	70	933.1742175	1300	0	6732.191306	2.692876522
17	89	1186.464362	1300	0	6618.655668	2.647462267
18	0	0		0	6618.655668	2.647462267
19	0	0		0	6618.655668	2.647462267
20	0	0		0	6618.655668	2.647462267
21	0	0		18	6600.655668	2.640262267
22	0	0		18	6582.655668	2.633062267
23	0	0		18	6564.655668	2.625862267
24	60	799.863615	1300	0	6064.519283	2.425807713
25	2	26.6621205		0	6091.181403	2.436472561
26	0	0		0	6091.181403	2.436472561
27	0	0		0	6091.181403	2.436472561
28	0	0		0	6091.181403	2.436472561
29	0	0		18	6073.181403	2.429272561
30	0	0		18	6055.181403	2.422072561

Mei						
1	0	0		18	6037.181403	2.414872561
2	0	0		18	6019.181403	2.407672561
3	6	79.9863615		0	6099.167765	2.439667106
4	0	0		0	6099.167765	2.439667106
5	0	0		0	6099.167765	2.439667106
6	0	0		0	6099.167765	2.439667106
7	0	0		18	6081.167765	2.432467106
8	0	0		18	6063.167765	2.425267106
9	0	0		18	6045.167765	2.418067106
10	0	0		18	6027.167765	2.410867106
11	0	0		18	6009.167765	2.403667106
12	0	0		18	5991.167765	2.396467106
13	0	0		18	5973.167765	2.389267106
14	0	0		18	5955.167765	2.382067106
15	0	0		18	5937.167765	2.374867106
16	0	0		18	5919.167765	2.367667106
17	0	0		18	5901.167765	2.360467106
18	0	0		18	5883.167765	2.353267106
19	0	0		18	5865.167765	2.346067106
20	0	0		18	5847.167765	2.338867106
21	0	0		18	5829.167765	2.331667106
22	0	0		18	5811.167765	2.324467106
23	0	0		18	5793.167765	2.317267106
24	0	0		18	5775.167765	2.310067106
25	0	0		18	5757.167765	2.302867106
26	23	306.6143858		0	6063.782151	2.42551286
27	0	0		0	6063.782151	2.42551286
28	0	0		0	6063.782151	2.42551286
29	0	0		0	6063.782151	2.42551286
30	0	0		18	6045.782151	2.41831286
31	0	0		18	6027.782151	2.41111286
Juni						
1	0	0		18	6009.782151	2.40391286
2	0	0		18	5991.782151	2.39671286
3	0	0		18	5973.782151	2.38951286
4	24	319.945446		0	6293.727597	2.517491039
5	0	0		0	6293.727597	2.517491039
6	0	0		0	6293.727597	2.517491039
7	6	79.9863615		0	6373.713958	2.549485583
8	0	0		0	6373.713958	2.549485583
9	0	0		0	6373.713958	2.549485583
10	0	0		0	6373.713958	2.549485583
11	25	333.2765063		0	6706.990464	2.682796186
12	22	293.2833255		0	7000.27379	2.800109516
13	0	0		0	7000.27379	2.800109516
14	11	146.6416628		0	7146.915453	2.858766181
15	0	0		0	7146.915453	2.858766181
16	0	0		0	7146.915453	2.858766181
17	0	0		0	7146.915453	2.858766181
18	0	0		18	7128.915453	2.851566181
19	0	0		18	7110.915453	2.844366181
20	0	0		18	7092.915453	2.837166181
21	0	0		18	7074.915453	2.829966181
22	0	0		18	7056.915453	2.822766181
23	0	0		18	7038.915453	2.815566181
24	4	53.324241		0	7092.239694	2.836895877
25	0	0		0	7092.239694	2.836895877
26	0	0		0	7092.239694	2.836895877
27	0	0		0	7092.239694	2.836895877
28	0	0		18	7074.239694	2.829695877
29	0	0		18	7056.239694	2.822495877
30	0	0		18	7038.239694	2.815295877
Juli						
1	0	0		18	7020.239694	2.808095877
2	0	0		18	7002.239694	2.800895877
3	0	0		18	6984.239694	2.793695877
4	0	0		18	6966.239694	2.786495877
5	0	0		18	6948.239694	2.779295877
6	0	0		18	6930.239694	2.772095877
7	0	0		18	6912.239694	2.764895877
8	0	0		18	6894.239694	2.757695877
9	0	0		18	6876.239694	2.750495877
10	0	0		18	6858.239694	2.743295877



11	0	0		18	6840.239694	2.736095877
12	22	293.2833255		0	7133.523019	2.853409208
13	42	559.9045305	1300	0	6393.42755	2.55737102
14	0	0		0	6393.42755	2.55737102
15	0	0		0	6393.42755	2.55737102
16	0	0		0	6393.42755	2.55737102
17	0	0		18	6375.42755	2.55017102
18	0	0		18	6357.42755	2.54297102
19	0	0		18	6339.42755	2.53577102
20	6	79.9863615		0	6419.413911	2.567765564
21	0	0		0	6419.413911	2.567765564
22	0	0		0	6419.413911	2.567765564
23	0	0		0	6419.413911	2.567765564
24	0	0		18	6401.413911	2.560565564
25	0	0		18	6383.413911	2.553365564
26	0	0		18	6365.413911	2.546165564
27	0	0		18	6347.413911	2.538965564
28	0	0		18	6329.413911	2.531765564
29	0	0		18	6311.413911	2.524565564
30	0	0		18	6293.413911	2.517365564
31	0	0		18	6275.413911	2.510165564
Agustus						
1	0	0		18	6257.413911	2.502965564
2	0	0		18	6239.413911	2.495765564
3	0	0		18	6221.413911	2.488565564
4	0	0		18	6203.413911	2.481365564
5	0	0		18	6185.413911	2.474165564
6	0	0		18	6167.413911	2.466965564
7	0	0		18	6149.413911	2.459765564
8	0	0		18	6131.413911	2.452565564
9	0	0		18	6113.413911	2.445365564
10	0	0		18	6095.413911	2.438165564
11	0	0		18	6077.413911	2.430965564
12	0	0		18	6059.413911	2.423765564
13	0	0		18	6041.413911	2.416565564
14	0	0		18	6023.413911	2.409365564
15	0	0		18	6005.413911	2.402165564
16	0	0		18	5987.413911	2.394965564
17	0	0		18	5969.413911	2.387765564
18	0	0		18	5951.413911	2.380565564
19	0	0		18	5933.413911	2.373365564
20	0	0		18	5915.413911	2.366165564
21	0	0		18	5897.413911	2.358965564
22	0	0		18	5879.413911	2.351765564
23	0	0		18	5861.413911	2.344565564
24	0	0		18	5843.413911	2.337365564
25	0	0		18	5825.413911	2.330165564
26	0	0		18	5807.413911	2.322965564
27	0	0		18	5789.413911	2.315765564
28	0	0		18	5771.413911	2.308565564
29	0	0		18	5753.413911	2.301365564
30	0	0		18	5735.413911	2.294165564
31	0	0		18	5717.413911	2.286965564

September						
1	0	0		18	5699.413911	2.279765564
2	0	0		18	5681.413911	2.272565564
3	0	0		18	5663.413911	2.265365564
4	0	0		18	5645.413911	2.258165564
5	0	0		18	5627.413911	2.250965564
6	0	0		18	5609.413911	2.243765564
7	0	0		18	5591.413911	2.236565564
8	0	0		18	5573.413911	2.229365564
9	0	0		18	5555.413911	2.222165564
10	0	0		18	5537.413911	2.214965564
11	0	0		18	5519.413911	2.207765564
12	0	0		18	5501.413911	2.200565564
13	0	0		18	5483.413911	2.193365564
14	0	0		18	5465.413911	2.186165564
15	0	0		18	5447.413911	2.178965564
16	0	0		18	5429.413911	2.171765564
17	0	0		18	5411.413911	2.164565564
18	0	0		18	5393.413911	2.157365564
19	0	0		18	5375.413911	2.150165564
20	0	0		18	5357.413911	2.142965564
21	0	0		18	5339.413911	2.135765564
22	0	0		18	5321.413911	2.128565564
23	0	0		18	5303.413911	2.121365564
24	0	0		18	5285.413911	2.114165564
25	0	0		18	5267.413911	2.106965564
26	0	0		18	5249.413911	2.099765564
27	0	0		18	5231.413911	2.092565564
28	0	0		18	5213.413911	2.085365564
29	0	0		18	5195.413911	2.078165564
30	0	0		18	5177.413911	2.070965564
Oktober						
1	0	0		18	5159.413911	2.063765564
2	0	0		18	5141.413911	2.056565564
3	0	0		18	5123.413911	2.049365564
4	0	0		18	5105.413911	2.042165564
5	64	853.187856		0	5958.601767	2.383440707
6	10	133.3106025		0	6091.91237	2.436764948
7	0	0		0	6091.91237	2.436764948
8	0	0		0	6091.91237	2.436764948
9	20	266.621205		0	6358.533575	2.54341343
10	2	26.6621205		0	6385.195695	2.554078278
11	0	0		0	6385.195695	2.554078278
12	0	0		0	6385.195695	2.554078278
13	0	0		0	6385.195695	2.554078278
14	8	106.648482		0	6491.844177	2.596737671
15	0	0		0	6491.844177	2.596737671
16	0	0		0	6491.844177	2.596737671
17	0	0		0	6491.844177	2.596737671
18	0	0		18	6473.844177	2.589537671
19	0	0		18	6455.844177	2.582337671
20	0	0		18	6437.844177	2.575137671
21	2	26.6621205		0	6464.506298	2.585802519
22	0	0		0	6464.506298	2.585802519
23	0	0		0	6464.506298	2.585802519
24	0	0		0	6464.506298	2.585802519
25	37	493.2492293		0	6957.755527	2.783102211
26	0	0		0	6957.755527	2.783102211
27	0	0		0	6957.755527	2.783102211
28	0	0		0	6957.755527	2.783102211
29	0	0		18	6939.755527	2.775902211
30	0	0		18	6921.755527	2.768702211
31	0	0		18	6903.755527	2.761502211
November						
1	0	0		18	6885.755527	2.754302211
2	0	0		18	6867.755527	2.747102211
3	0	0		18	6849.755527	2.739902211
4	0	0		18	6831.755527	2.732702211
5	27	359.9386268		0	7191.694154	2.876677661
6	0	0		0	7191.694154	2.876677661
7	17	226.6280243		0	7418.322178	2.967328871
8	0	0		0	7418.322178	2.967328871
9	0	0		0	7418.322178	2.967328871
10	42	559.9045305	1300	0	6678.226708	2.671290683

11	0	0		0	6678.226708	2.671290683
12	0	0		0	6678.226708	2.671290683
13	0	0		0	6678.226708	2.671290683
14	0	0		18	6660.226708	2.664090683
15	13	173.3037833		0	6833.530492	2.733412197
16	8	106.648482		0	6940.178974	2.776071589
17	0	0		0	6940.178974	2.776071589
18	38	506.5802895		0	7446.759263	2.978703705
19	0	0		0	7446.759263	2.978703705
20	3	39.99318075		0	7486.752444	2.994700978
21	0	0		0	7486.752444	2.994700978
22	0	0		0	7486.752444	2.994700978
23	0	0		0	7486.752444	2.994700978
24	8	106.648482	1300	0	6293.400926	2.51736037
25	40	533.24241	1300	0	5526.643336	2.210657334
26	0	0		0	5526.643336	2.210657334
27	29	386.6007473		0	5913.244083	2.365297633
28	5	66.65530125		0	5979.899384	2.391959754
29	0	0		0	5979.899384	2.391959754
30	3	39.99318075		0	6019.892565	2.407957026
Desember						
1	0	0		0	6019.892565	2.407957026
2	0	0		0	6019.892565	2.407957026
3	0	0		0	6019.892565	2.407957026
4	0	0		18	6001.892565	2.400757026
5	27	359.9386268	1300	0	5061.831192	2.024732477
6	0	0		0	5061.831192	2.024732477
7	17	226.6280243		0	5288.459216	2.115383686
8	0	0		0	5288.459216	2.115383686
9	0	0		0	5288.459216	2.115383686
10	42	559.9045305	1300	0	4548.363747	1.819345499
11	0	0		0	4548.363747	1.819345499
12	0	0		0	4548.363747	1.819345499
13	0	0		0	4548.363747	1.819345499
14	0	0		18	4530.363747	1.812145499
15	13	173.3037833		0	4703.66753	1.881467012
16	8	106.648482		0	4810.316012	1.924126405
17	0	0		0	4810.316012	1.924126405
18	38	506.5802895		0	5316.896301	2.126758521
19	0	0		0	5316.896301	2.126758521
20	3	39.99318075		0	5356.889482	2.142755793
21	0	0		0	5356.889482	2.142755793
22	0	0		0	5356.889482	2.142755793
23	0	0		0	5356.889482	2.142755793
24	8	106.648482		0	5463.537964	2.185415186
25	40	533.24241	1300	0	4696.780374	1.87871215
26	0	0		0	4696.780374	1.87871215
27	29	386.6007473	1300	0	3783.381121	1.513352449
28	5	66.65530125		0	3850.036423	1.540014569
29	0	0		0	3850.036423	1.540014569
30	3	39.99318075		0	3890.029603	1.556011841
31	31	413.2628678		0	4303.292471	1.721316988

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	15	199.9659038		0	4503.258375	1.80130335
2	29	386.6007473		0	4889.859122	1.955943649
3	0	0		0	4889.859122	1.955943649
4	36	479.918169	1300	0	4069.777291	1.627910916
5	5	66.65530125		0	4136.432592	1.654573037
6	0	0		0	4136.432592	1.654573037
7	23	306.6143858		0	4443.046978	1.777218791
8	7	93.31742175		0	4536.3644	1.81454576
9	16	213.296964		0	4749.661364	1.899864546
10	0	0		0	4749.661364	1.899864546
11	13	173.3037833		0	4922.965147	1.969186059
12	0	0		0	4922.965147	1.969186059
13	7	93.31742175		0	5016.282569	2.006513028
14	0	0		0	5016.282569	2.006513028
15	44	586.566651		0	5602.84922	2.241139688
16	0	0		0	5602.84922	2.241139688
17	23	306.6143858	1300	0	4609.463606	1.843785442
18	13	173.3037833		0	4782.767389	1.913106956
19	0	0		0	4782.767389	1.913106956
20	0	0		0	4782.767389	1.913106956
21	6	79.9863615		0	4862.75375	1.9451015
22	0	0		0	4862.75375	1.9451015
23	41	546.5734703		0	5409.327221	2.163730888
24	0	0		0	5409.327221	2.163730888
25	2	26.6621205		0	5435.989341	2.174395736
26	0	0		0	5435.989341	2.174395736
27	8	106.648482		0	5542.637823	2.217055129
28	11	146.6416628		0	5689.279486	2.275711794
29	36	479.918169	1300	0	4869.197655	1.947679062
30	123	1639.720411	1300	0	5208.918066	2.083567226
31	0	0		0	5208.918066	2.083567226
Februari						
1	0	0		0	5208.918066	2.083567226
2	0	0		0	5208.918066	2.083567226
3	15	199.9659038		0	5408.883969	2.163553588
4	0	0		0	5408.883969	2.163553588
5	0	0		0	5408.883969	2.163553588
6	3	39.99318075		0	5448.87715	2.17955086
7	0	0		0	5448.87715	2.17955086
8	2	26.6621205		0	5475.539271	2.190215708
9	0	0		0	5475.539271	2.190215708
10	12	159.972723		0	5635.511994	2.254204797
11	0	0		0	5635.511994	2.254204797
12	0	0		0	5635.511994	2.254204797
13	21	279.9522653		0	5915.464259	2.366185704
14	0	0		0	5915.464259	2.366185704
15	10	133.3106025		0	6048.774861	2.419509945
16	8	106.648482		0	6155.423343	2.462169337
17	0	0		0	6155.423343	2.462169337
18	0	0		0	6155.423343	2.462169337
19	0	0		0	6155.423343	2.462169337
20	4	53.324241	1300	0	4908.747584	1.963499034
21	0	0		0	4908.747584	1.963499034
22	9	119.9795423		0	5028.727127	2.011490851
23	17	226.6280243		0	5255.355151	2.10214206
24	0	0		0	5255.355151	2.10214206
25	3	39.99318075		0	5295.348332	2.118139333
26	6	79.9863615		0	5375.334693	2.150133877
27	4	53.324241		0	5428.658934	2.171463574
28	1	13.33106025		0	5441.989994	2.176795998
Maret						
1	2	26.6621205		0	5468.652115	2.187460846
2	0	0		0	5468.652115	2.187460846
3	0	0		0	5468.652115	2.187460846
4	0	0		0	5468.652115	2.187460846
5	0	0		18	5450.652115	2.180260846
6	19	253.2901448	1300	0	4403.94226	1.761576904
7	0	0		0	4403.94226	1.761576904
8	30	399.9318075		0	4803.874067	1.921549627
9	0	0		0	4803.874067	1.921549627

10	42	559.9045305		0	5363.778598	2.145511439
11	1	13.33106025		0	5377.109658	2.150843863
12	0	0		0	5377.109658	2.150843863
13	0	0		0	5377.109658	2.150843863
14	0	0		0	5377.109658	2.150843863
15	0	0		18	5359.109658	2.143643863
16	0	0		18	5341.109658	2.136443863
17	0	0		18	5323.109658	2.129243863
18	0	0		18	5305.109658	2.122043863
19	0	0		18	5287.109658	2.114843863
20	0	0		18	5269.109658	2.107643863
21	0	0		18	5251.109658	2.100443863
22	0	0		18	5233.109658	2.093243863
23	0	0		18	5215.109658	2.086043863
24	0	0		18	5197.109658	2.078843863
25	2	26.6621205		0	5223.771778	2.089508711
26	9	119.9795423		0	5343.751321	2.137500528
27	5	66.65530125		0	5410.406622	2.164162649
28	2	26.6621205		0	5437.068742	2.174827497
29	7	93.31742175		0	5530.386164	2.212154466
30	10	133.3106025		0	5663.696767	2.265478707
31	2	26.6621205		0	5690.358887	2.276143555
April						
1	6	79.9863615		0	5770.345249	2.308138099
2	2	26.6621205		0	5797.007369	2.318802948
3	3	39.99318075		0	5837.00055	2.33480022
4	0	0		0	5837.00055	2.33480022
5	0	0		0	5837.00055	2.33480022
6	0	0		0	5837.00055	2.33480022
7	0	0		18	5819.00055	2.32760022
8	0	0		18	5801.00055	2.32040022
9	0	0		18	5783.00055	2.31320022
10	0	0		18	5765.00055	2.30600022
11	0	0		18	5747.00055	2.29880022
12	0	0		18	5729.00055	2.29160022
13	0	0		18	5711.00055	2.28440022
14	0	0		18	5693.00055	2.27720022
15	65	866.5189163	1300	0	5259.519466	2.103807786
16	10	133.3106025		0	5392.830069	2.157132027
17	10	133.3106025		0	5526.140671	2.210456268
18	1	13.33106025		0	5539.471731	2.215788693
19	7	93.31742175		0	5632.789153	2.253115661
20	4	53.324241		0	5686.113394	2.274445358
21	0	0		0	5686.113394	2.274445358
22	0	0		0	5686.113394	2.274445358
23	0	0		0	5686.113394	2.274445358
24	0	0		18	5668.113394	2.267245358
25	27	359.9386268		0	6028.052021	2.411220808
26	0	0		0	6028.052021	2.411220808
27	0	0		0	6028.052021	2.411220808
28	0	0		0	6028.052021	2.411220808
29	0	0		18	6010.052021	2.404020808
30	0	0		18	5992.052021	2.396820808

Mei						
1	0	0		18	5974.052021	2.389620808
2	1	13.33106025		0	5987.383081	2.394953232
3	0	0		0	5987.383081	2.394953232
4	0	0		0	5987.383081	2.394953232
5	0	0		0	5987.383081	2.394953232
6	0	0		18	5969.383081	2.387753232
7	0	0		18	5951.383081	2.380553232
8	0	0		18	5933.383081	2.373353232
9	5	66.65530125		0	6000.038382	2.400015353
10	5	66.65530125		0	6066.693684	2.426677473
11	32	426.593928	1300	0	5193.287612	2.077315045
12	0	0		0	5193.287612	2.077315045
13	1	13.33106025		0	5206.618672	2.082647469
14	0	0		0	5206.618672	2.082647469
15	0	0		0	5206.618672	2.082647469
16	0	0		0	5206.618672	2.082647469
17	0	0		18	5188.618672	2.075447469
18	0	0		18	5170.618672	2.068247469
19	0	0		18	5152.618672	2.061047469
20	0	0		18	5134.618672	2.053847469
21	0	0		18	5116.618672	2.046647469
22	0	0		18	5098.618672	2.039447469
23	9	119.9795423		0	5218.598214	2.087439286
24	0	0		0	5218.598214	2.087439286
25	0	0		0	5218.598214	2.087439286
26	0	0		0	5218.598214	2.087439286
27	0	0		18	5200.598214	2.080239286
28	0	0		18	5182.598214	2.073039286
29	32	426.593928	1300	0	4309.192142	1.723676857
30	0	0		0	4309.192142	1.723676857
31	0	0		0	4309.192142	1.723676857
Juni						
1	0	0		0	4309.192142	1.723676857
2	0	0		18	4291.192142	1.716476857
3	0	0		18	4273.192142	1.709276857
4	0	0		18	4255.192142	1.702076857
5	0	0		18	4237.192142	1.694876857
6	0	0		18	4219.192142	1.687676857
7	0	0		18	4201.192142	1.680476857
8	0	0		18	4183.192142	1.673276857
9	0	0		18	4165.192142	1.666076857
10	0	0		18	4147.192142	1.658876857
11	0	0		18	4129.192142	1.651676857
12	0	0		18	4111.192142	1.644476857
13	0	0		18	4093.192142	1.637276857
14	0	0		18	4075.192142	1.630076857
15	0	0		18	4057.192142	1.622876857
16	0	0		18	4039.192142	1.615676857
17	0	0		18	4021.192142	1.608476857
18	0	0		18	4003.192142	1.601276857
19	0	0		18	3985.192142	1.594076857
20	0	0		18	3967.192142	1.586876857
21	0	0		18	3949.192142	1.579676857
22	0	0		18	3931.192142	1.572476857
23	0	0		18	3913.192142	1.565276857
24	0	0		18	3895.192142	1.558076857
25	0	0		18	3877.192142	1.550876857
26	0	0		18	3859.192142	1.543676857
27	0	0		18	3841.192142	1.536476857
28	0	0		18	3823.192142	1.529276857
29	0	0		18	3805.192142	1.522076857
30	0	0		18	3787.192142	1.514876857
Juli						
1	0	0		18	3769.192142	1.507676857
2	0	0		18	3751.192142	1.500476857
3	0	0		18	3733.192142	1.493276857
4	0	0		18	3715.192142	1.486076857
5	0	0		18	3697.192142	1.478876857
6	0	0		18	3679.192142	1.471676857
7	0	0		18	3661.192142	1.464476857
8	0	0		18	3643.192142	1.457276857
9	0	0		18	3625.192142	1.450076857
10	0	0		18	3607.192142	1.442876857

11	0	0		18	3589.192142	1.435676857
12	0	0		18	3571.192142	1.428476857
13	0	0		18	3553.192142	1.421276857
14	0	0		18	3535.192142	1.414076857
15	0	0		18	3517.192142	1.406876857
16	0	0		18	3499.192142	1.399676857
17	0	0		18	3481.192142	1.392476857
18	2	26.6621205		18	3489.854263	1.395941705
19	0	0		18	3471.854263	1.388741705
20	0	0		18	3453.854263	1.381541705
21	0	0		18	3435.854263	1.374341705
22	0	0		18	3417.854263	1.367141705
23	0	0		18	3399.854263	1.359941705
24	0	0		18	3381.854263	1.352741705
25	0	0		18	3363.854263	1.345541705
26	0	0		18	3345.854263	1.338341705
27	0	0		18	3327.854263	1.331141705
28	0	0		18	3309.854263	1.323941705
29	0	0		18	3291.854263	1.316741705
30	0	0		18	3273.854263	1.309541705
31	0	0		18	3255.854263	1.302341705
Agustus						
1	0	0		18	3237.854263	1.295141705
2	0	0		18	3219.854263	1.287941705
3	0	0		18	3201.854263	1.280741705
4	0	0		18	3183.854263	1.273541705
5	0	0		18	3165.854263	1.266341705
6	0	0		18	3147.854263	1.259141705
7	0	0		18	3129.854263	1.251941705
8	0	0		18	3111.854263	1.244741705
9	0	0		18	3093.854263	1.237541705
10	0	0		18	3075.854263	1.230341705
11	0	0		18	3057.854263	1.223141705
12	0	0		18	3039.854263	1.215941705
13	0	0		18	3021.854263	1.208741705
14	0	0		18	3003.854263	1.201541705
15	0	0		18	2985.854263	1.194341705
16	0	0		18	2967.854263	1.187141705
17	0	0		18	2949.854263	1.179941705
18	0	0		18	2931.854263	1.172741705
19	0	0		18	2913.854263	1.165541705
20	0	0		18	2895.854263	1.158341705
21	0	0		18	2877.854263	1.151141705
22	0	0		18	2859.854263	1.143941705
23	0	0		18	2841.854263	1.136741705
24	0	0		18	2823.854263	1.129541705
25	0	0		18	2805.854263	1.122341705
26	0	0		18	2787.854263	1.115141705
27	0	0		18	2769.854263	1.107941705
28	0	0		18	2751.854263	1.100741705
29	0	0		18	2733.854263	1.093541705
30	0	0		18	2715.854263	1.086341705
31	0	0		18	2697.854263	1.079141705

September						
1	0	0		18	2679.854263	1.071941705
2	0	0		18	2661.854263	1.064741705
3	0	0		18	2643.854263	1.057541705
4	0	0		18	2625.854263	1.050341705
5	0	0		18	2607.854263	1.043141705
6	0	0		18	2589.854263	1.035941705
7	0	0		18	2571.854263	1.028741705
8	0	0		18	2553.854263	1.021541705
9	0	0		18	2535.854263	1.014341705
10	0	0		18	2517.854263	1.007141705
11	0	0		18	2499.854263	0.999941705
12	0	0		18	2481.854263	0.992741705
13	0	0		18	2463.854263	0.985541705
14	0	0		18	2445.854263	0.978341705
15	0	0		18	2427.854263	0.971141705
16	0	0		18	2409.854263	0.963941705
17	0	0		18	2391.854263	0.956741705
18	0	0		18	2373.854263	0.949541705
19	0	0		18	2355.854263	0.942341705
20	0	0		18	2337.854263	0.935141705
21	0	0		18	2319.854263	0.927941705
22	0	0		18	2301.854263	0.920741705
23	0	0		18	2283.854263	0.913541705
24	0	0		18	2265.854263	0.906341705
25	0	0		18	2247.854263	0.899141705
26	0	0		18	2229.854263	0.891941705
27	0	0		18	2211.854263	0.884741705
28	0	0		18	2193.854263	0.877541705
29	0	0		18	2175.854263	0.870341705
30	0	0		18	2157.854263	0.863141705
Oktober						
1	0	0		18	2139.854263	0.855941705
2	0	0		18	2121.854263	0.848741705
3	0	0		18	2103.854263	0.841541705
4	0	0		18	2085.854263	0.834341705
5	0	0		18	2067.854263	0.827141705
6	0	0		18	2049.854263	0.819941705
7	0	0		18	2031.854263	0.812741705
8	0	0		18	2013.854263	0.805541705
9	0	0		18	1995.854263	0.798341705
10	0	0		18	1977.854263	0.791141705
11	0	0		18	1959.854263	0.783941705
12	0	0		18	1941.854263	0.776741705
13	0	0		18	1923.854263	0.769541705
14	0	0		18	1905.854263	0.762341705
15	0	0		18	1887.854263	0.755141705
16	0	0		18	1869.854263	0.747941705
17	0	0		18	1851.854263	0.740741705
18	0	0		18	1833.854263	0.733541705
19	0	0		18	1815.854263	0.726341705
20	0	0		18	1797.854263	0.719141705
21	0	0		18	1779.854263	0.711941705
22	0	0		18	1761.854263	0.704741705
23	0	0		18	1743.854263	0.697541705
24	0	0		18	1725.854263	0.690341705
25	0	0		18	1707.854263	0.683141705
26	0	0		18	1689.854263	0.675941705
27	0	0		18	1671.854263	0.668741705
28	0	0		18	1653.854263	0.661541705
29	0	0		18	1635.854263	0.654341705
30	0	0		18	1617.854263	0.647141705
31	0	0		18	1599.854263	0.639941705
November						
1	0	0		18	1581.854263	0.632741705
2	0	0		18	1563.854263	0.625541705
3	0	0		18	1545.854263	0.618341705
4	0	0		18	1527.854263	0.611141705
5	0	0		18	1509.854263	0.603941705
6	0	0		18	1491.854263	0.596741705
7	0	0		18	1473.854263	0.589541705
8	0	0		18	1455.854263	0.582341705
9	0	0		18	1437.854263	0.575141705
10	0	0		18	1419.854263	0.567941705



11	0	0		18	1401.854263	0.560741705
12	0	0		18	1383.854263	0.553541705
13	0	0		18	1365.854263	0.546341705
14	6.3	83.98567958		0	1449.839942	0.579935977
15	0	0		0	1449.839942	0.579935977
16	0	0		0	1449.839942	0.579935977
17	0	0		0	1449.839942	0.579935977
18	0	0		18	1431.839942	0.572735977
19	0	0		18	1413.839942	0.565535977
20	0	0		18	1395.839942	0.558335977
21	0	0		18	1377.839942	0.551135977
22	0	0		18	1359.839942	0.543935977
23	0	0		18	1341.839942	0.536735977
24	4.5	59.98977113		0	1401.829713	0.560731885
25	0	0		0	1401.829713	0.560731885
26	0	0		0	1401.829713	0.560731885
27	5	66.65530125		0	1468.485014	0.587394006
28	0	0		0	1468.485014	0.587394006
29	3	39.99318075		0	1508.478195	0.603391278
30	0	0		0	1508.478195	0.603391278
Desember						
1	3	39.99318075		0	1548.471376	0.61938855
2	2.5	33.32765063		0	1581.799027	0.632719611
3	5	66.65530125		0	1648.454328	0.659381731
4	18	239.9590845		0	1888.413412	0.755365365
5	47.5	633.2253619		0	2521.638774	1.00865551
6	0	0		0	2521.638774	1.00865551
7	0	0		0	2521.638774	1.00865551
8	0	0		0	2521.638774	1.00865551
9	0	0		18	2503.638774	1.00145551
10	2.5	33.32765063		0	2536.966425	1.01478657
11	0	0		0	2536.966425	1.01478657
12	0	0		0	2536.966425	1.01478657
13	83.2	1109.144213		0	3646.110638	1.458444255
14	0	0		0	3646.110638	1.458444255
15	0	0		0	3646.110638	1.458444255
16	0	0		0	3646.110638	1.458444255
17	0	0		18	3628.110638	1.451244255
18	0	0		18	3610.110638	1.444044255
19	0	0		18	3592.110638	1.436844255
20	0	0		18	3574.110638	1.429644255
21	0	0		18	3556.110638	1.422444255
22	0	0		18	3538.110638	1.415244255
23	0	0		18	3520.110638	1.408044255
24	1	13.33106025		0	3533.441698	1.413376679
25	0	0		0	3533.441698	1.413376679
26	22	293.2833255		0	3826.725023	1.530690009
27	0	0		0	3826.725023	1.530690009
28	8	106.648482		0	3933.373505	1.573349402
29	0	0		0	3933.373505	1.573349402
30	0	0		0	3933.373505	1.573349402
31	2.4	31.9945446		0	3965.36805	1.58614722

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3 )	tinggi air (m)
1	4.8	63.989089		0	4029.357139	1.611742856
2	10	133.3106		0	4162.667742	1.665067097
3	36.5	486.5837		0	4649.251441	1.859700576
4	0	0		0	4649.251441	1.859700576
5	22	293.28333		0	4942.534766	1.977013907
6	7	93.317422		0	5035.852188	2.014340875
7	0	0		0	5035.852188	2.014340875
8	0	0		0	5035.852188	2.014340875
9	22.3	297.28264		0	5333.134832	2.133253933
10	16	213.29696		0	5546.431796	2.218572718
11	15	199.9659		0	5746.397699	2.29855908
12	53	706.54619	1300	0	5152.943893	2.061177557
13	27	359.93863		0	5512.882519	2.205153008
14	12	159.97272		0	5672.855242	2.269142097
15	25	333.27651		0	6006.131749	2.402452699
16	0	0		0	6006.131749	2.402452699
17	0	0		0	6006.131749	2.402452699
18	0	0		0	6006.131749	2.402452699
19	2	26.662121		0	6032.793869	2.413117548
20	10	133.3106		0	6166.104472	2.466441789
21	0	0		0	6166.104472	2.466441789
22	0	0		0	6166.104472	2.466441789
23	7.7	102.64916	1300	0	4968.753636	1.987501454
24	0	0		0	4968.753636	1.987501454
25	44	586.56665		0	5555.320287	2.222128115
26	0	0		0	5555.320287	2.222128115
27	0	0		0	5555.320287	2.222128115
28	7	93.317422		0	5648.637708	2.259455083
29	0	0		0	5648.637708	2.259455083
30	102	1359.7681	1300	0	5708.405854	2.283362342
31	54	719.87725	1300	0	5128.283107	2.051313243
Februari						
1	4	53.324241		0	5181.607348	2.072642939
2	0	0		0	5181.607348	2.072642939
3	8.2	109.31469		0	5290.922042	2.116368817
4	40	533.24241		0	5824.164452	2.329665781
5	9	119.97954		0	5944.143995	2.377657598
6	0.9	11.997954		0	5956.141949	2.38245678
7	3.5	46.658711		0	6002.80066	2.401120264
8	0	0		0	6002.80066	2.401120264
9	4.7	62.655983		0	6065.456643	2.426182657
10	16.2	215.96318	1300	0	4981.419819	1.992567928
11	1	13.33106		0	4994.750879	1.997900352
12	0	0		0	4994.750879	1.997900352
13	0	0		0	4994.750879	1.997900352
14	60	799.86362	1300	0	4494.614494	1.797845798
15	27.5	366.60416		0	4861.218651	1.94448746
16	0	0		0	4861.218651	1.94448746
17	11.4	151.97409		0	5013.192738	2.005277095
18	1	13.33106		0	5026.523798	2.010609519
19	12.3	163.97204		0	5190.495839	2.076198336
20	0	0		0	5190.495839	2.076198336
21	0	0		0	5190.495839	2.076198336
22	2	26.662121		0	5217.15796	2.086863184
23	0	0		0	5217.15796	2.086863184
24	0	0		0	5217.15796	2.086863184
25	1.1	14.664166		0	5231.822126	2.09272885
26	2	26.662121		0	5258.484247	2.103393699
27	2.1	27.995227		0	5286.479473	2.114591789
28	0	0		0	5286.479473	2.114591789
Maret						
1	0	0		0	5286.479473	2.114591789
2	8	106.64848		0	5393.127955	2.157251182
3	0	0		0	5393.127955	2.157251182
4	42	559.90453	1300	0	4653.032486	1.861212994
5	0	0		0	4653.032486	1.861212994
6	0.9	11.997954		0	4665.03044	1.866012176
7	5.5	73.320831		0	4738.351271	1.895340508
8	15	199.9659		0	4938.317175	1.97532687
9	7	93.317422		0	5031.634597	2.012653839

10	5	66.655301		0	5098.289898	2.039315959
11	35	466.58711		0	5564.877007	2.225950803
12	0	0		0	5564.877007	2.225950803
13	0	0		0	5564.877007	2.225950803
14	0	0		0	5564.877007	2.225950803
15	0	0		18	5546.877007	2.218750803
16	20	266.62121		0	5813.498212	2.325399285
17	0	0		0	5813.498212	2.325399285
18	0	0		0	5813.498212	2.325399285
19	0	0		0	5813.498212	2.325399285
20	0	0		18	5795.498212	2.318199285
21	23	306.61439		0	6102.112597	2.440845039
22	20	266.62121	1300	0	5068.733802	2.027493521
23	0	0		0	5068.733802	2.027493521
24	0	0		0	5068.733802	2.027493521
25	0	0		0	5068.733802	2.027493521
26	20	266.62121		0	5335.355007	2.134142003
27	0	0		0	5335.355007	2.134142003
28	0	0		0	5335.355007	2.134142003
29	0	0		0	5335.355007	2.134142003
30	0	0		18	5317.355007	2.126942003
31	0	0		18	5299.355007	2.119742003
April						
1	0	0		18	5281.355007	2.112542003
2	0	0		18	5263.355007	2.105342003
3	0	0		18	5245.355007	2.098142003
4	0	0		18	5227.355007	2.090942003
5	0	0		18	5209.355007	2.083742003
6	15	199.9659		0	5409.320911	2.163728364
7	0	0		0	5409.320911	2.163728364
8	0	0		0	5409.320911	2.163728364
9	7	93.317422		0	5502.638333	2.201055333
10	0	0		0	5502.638333	2.201055333
11	9	119.97954		0	5622.617875	2.24904715
12	0	0		0	5622.617875	2.24904715
13	20	266.62121		0	5889.23908	2.355695632
14	0	0		0	5889.23908	2.355695632
15	0	0		0	5889.23908	2.355695632
16	0	0		0	5889.23908	2.355695632
17	0	0		18	5871.23908	2.348495632
18	0	0		18	5853.23908	2.341295632
19	0	0		18	5835.23908	2.334095632
20	0	0		18	5817.23908	2.326895632
21	0	0		18	5799.23908	2.319695632
22	0	0		18	5781.23908	2.312495632
23	0	0		18	5763.23908	2.305295632
24	0	0		18	5745.23908	2.298095632
25	0	0		18	5727.23908	2.290895632
26	0	0		18	5709.23908	2.283695632
27	0	0		18	5691.23908	2.276495632
28	0	0		18	5673.23908	2.269295632
29	0	0		18	5655.23908	2.262095632
30	32	426.59393		0	6081.833008	2.432733203

Mei						
1	0	0		0	6081.833008	2.432733203
2	30	399.93181	1300	0	5181.764816	2.072705926
3	0	0		0	5181.764816	2.072705926
4	0	0		0	5181.764816	2.072705926
5	25	333.27651	1300	0	4215.041322	1.686016529
6	0	0		0	4215.041322	1.686016529
7	25	333.27651		0	4548.317828	1.819327131
8	14	186.63484		0	4734.952672	1.893981069
9	0	0		0	4734.952672	1.893981069
10	0	0		0	4734.952672	1.893981069
11	3	39.993181		0	4774.945852	1.909978341
12	0	0		0	4774.945852	1.909978341
13	0	0		0	4774.945852	1.909978341
14	0	0		0	4774.945852	1.909978341
15	0	0		18	4756.945852	1.902778341
16	0	0		18	4738.945852	1.895578341
17	0	0		18	4720.945852	1.888378341
18	0	0		18	4702.945852	1.881178341
19	0	0		18	4684.945852	1.873978341
20	0	0		18	4666.945852	1.866778341
21	0	0		18	4648.945852	1.859578341
22	0	0		18	4630.945852	1.852378341
23	0	0		18	4612.945852	1.845178341
24	0	0		18	4594.945852	1.837978341
25	0	0		18	4576.945852	1.830778341
26	0	0		18	4558.945852	1.823578341
27	0	0		18	4540.945852	1.816378341
28	0	0		18	4522.945852	1.809178341
29	0	0		18	4504.945852	1.801978341
30	0	0		18	4486.945852	1.794778341
31	0	0		18	4468.945852	1.787578341
Juni						
1	0	0		18	4450.945852	1.780378341
2	0	0		18	4432.945852	1.773178341
3	0	0		18	4414.945852	1.765978341
4	0	0		18	4396.945852	1.758778341
5	0	0		18	4378.945852	1.751578341
6	0	0		18	4360.945852	1.744378341
7	0	0		18	4342.945852	1.737178341
8	12	159.97272		0	4502.918575	1.80116743
9	0	0		0	4502.918575	1.80116743
10	0	0		0	4502.918575	1.80116743
11	0	0		0	4502.918575	1.80116743
12	2	26.662121		0	4529.580696	1.811832278
13	0	0		0	4529.580696	1.811832278
14	0	0		0	4529.580696	1.811832278
15	0	0		0	4529.580696	1.811832278
16	0	0		18	4511.580696	1.804632278
17	0	0		18	4493.580696	1.797432278
18	3	39.993181		0	4533.573877	1.813429551
19	10	133.3106		0	4666.884479	1.866753792
20	10	133.3106		0	4800.195082	1.920078033
21	0	0		0	4800.195082	1.920078033
22	4	53.324241		0	4853.519323	1.941407729
23	0	0		0	4853.519323	1.941407729
24	0	0		0	4853.519323	1.941407729
25	0	0		0	4853.519323	1.941407729
26	0	0		18	4835.519323	1.934207729
27	0	0		18	4817.519323	1.927007729
28	0	0		18	4799.519323	1.919807729
29	0	0		18	4781.519323	1.912607729
30	0	0		18	4763.519323	1.905407729
Juli						
1	0	0		18	4745.519323	1.898207729
2	0	0		18	4727.519323	1.891007729
3	0	0		18	4709.519323	1.883807729
4	0	0		18	4691.519323	1.876607729
5	0	0		18	4673.519323	1.869407729
6	0	0		18	4655.519323	1.862207729
7	0	0		18	4637.519323	1.855007729
8	0	0		18	4619.519323	1.847807729
9	0	0		18	4601.519323	1.840607729
10	0	0		18	4583.519323	1.833407729

11	0	0		18	4565.519323	1.826207729
12	0	0		18	4547.519323	1.819007729
13	0	0		18	4529.519323	1.811807729
14	0	0		18	4511.519323	1.804607729
15	0	0		18	4493.519323	1.797407729
16	0	0		18	4475.519323	1.790207729
17	0	0		18	4457.519323	1.783007729
18	0	0		18	4439.519323	1.775807729
19	0	0		18	4421.519323	1.768607729
20	0	0		18	4403.519323	1.761407729
21	0	0		18	4385.519323	1.754207729
22	0	0		18	4367.519323	1.747007729
23	0	0		18	4349.519323	1.739807729
24	0	0		18	4331.519323	1.732607729
25	0	0		18	4313.519323	1.725407729
26	0	0		18	4295.519323	1.718207729
27	0	0		18	4277.519323	1.711007729
28	0	0		18	4259.519323	1.703807729
29	0	0		18	4241.519323	1.696607729
30	0	0		18	4223.519323	1.689407729
31	0	0		18	4205.519323	1.682207729
Agustus						
1	0	0		18	4187.519323	1.675007729
2	0	0		18	4169.519323	1.667807729
3	0	0		18	4151.519323	1.660607729
4	0	0		18	4133.519323	1.653407729
5	0	0		18	4115.519323	1.646207729
6	0	0		18	4097.519323	1.639007729
7	0	0		18	4079.519323	1.631807729
8	0	0		18	4061.519323	1.624607729
9	0	0		18	4043.519323	1.617407729
10	0	0		18	4025.519323	1.610207729
11	0	0		18	4007.519323	1.603007729
12	0	0		18	3989.519323	1.595807729
13	0	0		18	3971.519323	1.588607729
14	0	0		18	3953.519323	1.581407729
15	0	0		18	3935.519323	1.574207729
16	0	0		18	3917.519323	1.567007729
17	0	0		18	3899.519323	1.559807729
18	0	0		18	3881.519323	1.552607729
19	0	0		18	3863.519323	1.545407729
20	0	0		18	3845.519323	1.538207729
21	0	0		18	3827.519323	1.531007729
22	0	0		18	3809.519323	1.523807729
23	0	0		18	3791.519323	1.516607729
24	0	0		18	3773.519323	1.509407729
25	0	0		18	3755.519323	1.502207729
26	0	0		18	3737.519323	1.495007729
27	0	0		18	3719.519323	1.487807729
28	0	0		18	3701.519323	1.480607729
29	0	0		18	3683.519323	1.473407729
30	0	0		18	3665.519323	1.466207729
31	0	0		18	3647.519323	1.459007729

September						
1	0	0		18	3629.519323	1.451807729
2	0	0		18	3611.519323	1.444607729
3	0	0		18	3593.519323	1.437407729
4	0	0		18	3575.519323	1.430207729
5	0	0		18	3557.519323	1.423007729
6	0	0		18	3539.519323	1.415807729
7	0	0		18	3521.519323	1.408607729
8	0	0		18	3503.519323	1.401407729
9	0	0		18	3485.519323	1.394207729
10	0	0		18	3467.519323	1.387007729
11	0	0		18	3449.519323	1.379807729
12	0	0		18	3431.519323	1.372607729
13	0	0		18	3413.519323	1.365407729
14	0	0		18	3395.519323	1.358207729
15	0	0		18	3377.519323	1.351007729
16	0	0		18	3359.519323	1.343807729
17	0	0		18	3341.519323	1.336607729
18	0	0		18	3323.519323	1.329407729
19	0	0		18	3305.519323	1.322207729
20	0	0		18	3287.519323	1.315007729
21	0	0		18	3269.519323	1.307807729
22	0	0		18	3251.519323	1.300607729
23	0	0		18	3233.519323	1.293407729
24	0	0		18	3215.519323	1.286207729
25	0	0		18	3197.519323	1.279007729
26	0	0		18	3179.519323	1.271807729
27	0	0		18	3161.519323	1.264607729
28	0	0		18	3143.519323	1.257407729
29	0	0		18	3125.519323	1.250207729
30	0	0		18	3107.519323	1.243007729
Oktober						
1	0	0		18	3089.519323	1.235807729
2	0	0		18	3071.519323	1.228607729
3	0	0		18	3053.519323	1.221407729
4	0	0		18	3035.519323	1.214207729
5	0	0		18	3017.519323	1.207007729
6	0	0		18	2999.519323	1.199807729
7	0	0		18	2981.519323	1.192607729
8	0	0		18	2963.519323	1.185407729
9	0	0		18	2945.519323	1.178207729
10	0	0		18	2927.519323	1.171007729
11	0	0		18	2909.519323	1.163807729
12	0	0		18	2891.519323	1.156607729
13	0	0		18	2873.519323	1.149407729
14	0	0		18	2855.519323	1.142207729
15	0	0		18	2837.519323	1.135007729
16	0	0		18	2819.519323	1.127807729
17	0	0		18	2801.519323	1.120607729
18	0	0		18	2783.519323	1.113407729
19	0	0		18	2765.519323	1.106207729
20	0	0		18	2747.519323	1.099007729
21	0	0		18	2729.519323	1.091807729
22	0	0		18	2711.519323	1.084607729
23	0	0		18	2693.519323	1.077407729
24	0	0		18	2675.519323	1.070207729
25	0	0		18	2657.519323	1.063007729
26	0	0		18	2639.519323	1.055807729
27	0	0		18	2621.519323	1.048607729
28	0	0		18	2603.519323	1.041407729
29	0	0		18	2585.519323	1.034207729
30	0	0		18	2567.519323	1.027007729
31	0	0		18	2549.519323	1.019807729
November						
1	0	0		18	2531.519323	1.012607729
2	0	0		18	2513.519323	1.005407729
3	0	0		18	2495.519323	0.998207729
4	0	0		18	2477.519323	0.991007729
5	0	0		18	2459.519323	0.983807729
6	0	0		18	2441.519323	0.976607729
7	0	0		18	2423.519323	0.969407729
8	0	0		18	2405.519323	0.962207729
9	0	0		18	2387.519323	0.955007729
10	5	66.655301		18	2436.174624	0.97446985

11	0	0		18	2418.174624	0.96726985
12	0	0		18	2400.174624	0.96006985
13	0	0		18	2382.174624	0.95286985
14	0	0		18	2364.174624	0.94566985
15	0	0		18	2346.174624	0.93846985
16	0	0		18	2328.174624	0.93126985
17	0	0		18	2310.174624	0.92406985
18	9	119.97954		0	2430.154166	0.972061666
19	0	0		0	2430.154166	0.972061666
20	0	0		0	2430.154166	0.972061666
21	0	0		0	2430.154166	0.972061666
22	0	0		18	2412.154166	0.964861666
23	0	0		18	2394.154166	0.957661666
24	0	0		18	2376.154166	0.950461666
25	0	0		18	2358.154166	0.943261666
26	0	0		18	2340.154166	0.936061666
27	0	0		18	2322.154166	0.928861666
28	0	0		18	2304.154166	0.921661666
29	0	0		18	2286.154166	0.914461666
30	0	0		18	2268.154166	0.907261666
Desember						
1	0	0		18	2250.154166	0.900061666
2	0	0		18	2232.154166	0.892861666
3	0	0		18	2214.154166	0.885661666
4	0	0		18	2196.154166	0.878461666
5	0	0		18	2178.154166	0.871261666
6	0	0		18	2160.154166	0.864061666
7	0	0		18	2142.154166	0.856861666
8	0	0		18	2124.154166	0.849661666
9	0	0		18	2106.154166	0.842461666
10	0	0		18	2088.154166	0.835261666
11	0	0		18	2070.154166	0.828061666
12	0	0		18	2052.154166	0.820861666
13	0	0		18	2034.154166	0.813661666
14	0	0		18	2016.154166	0.806461666
15	0	0		18	1998.154166	0.799261666
16	0	0		18	1980.154166	0.792061666
17	0	0		18	1962.154166	0.784861666
18	0	0		18	1944.154166	0.777661666
19	0	0		18	1926.154166	0.770461666
20	0	0		18	1908.154166	0.763261666
21	0	0		18	1890.154166	0.756061666
22	0	0		18	1872.154166	0.748861666
23	0	0		18	1854.154166	0.741661666
24	0	0		18	1836.154166	0.734461666
25	0	0		18	1818.154166	0.727261666
26	0	0		18	1800.154166	0.720061666
27	0	0		18	1782.154166	0.712861666
28	0	0		18	1764.154166	0.705661666
29	0	0		18	1746.154166	0.698461666
30	0	0		18	1728.154166	0.691261666
31	0	0		18	1710.154166	0.684061666

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	5	66.655301		0	1776.809467	0.710723787
2	0	0		0	1776.809467	0.710723787
3	0	0		0	1776.809467	0.710723787
4	0	0		0	1776.809467	0.710723787
5	0	0		18	1758.809467	0.703523787
6	35	466.58711		0	2225.396576	0.89015863
7	52	693.21513		0	2918.611709	1.167444684
8	9	119.97954		0	3038.591251	1.215436501
9	0	0		0	3038.591251	1.215436501
10	34	453.25605		0	3491.8473	1.39673892
11	5	66.655301		0	3558.502601	1.42340104
12	6	79.986362		0	3638.488963	1.455395585
13	0	0		0	3638.488963	1.455395585
14	0	0		0	3638.488963	1.455395585
15	0	0		0	3638.488963	1.455395585
16	0	0		18	3620.488963	1.448195585
17	0	0		18	3602.488963	1.440995585
18	0	0		18	3584.488963	1.433795585
19	0	0		18	3566.488963	1.426595585
20	0	0		18	3548.488963	1.419395585
21	0	0		18	3530.488963	1.412195585
22	0	0		18	3512.488963	1.404995585
23	0	0		18	3494.488963	1.397795585
24	0	0		18	3476.488963	1.390595585
25	0	0		18	3458.488963	1.383395585
26	0	0		18	3440.488963	1.376195585
27	6	79.986362		0	3520.475324	1.40819013
28	2	26.662121		0	3547.137445	1.418854978
29	15	199.9659		0	3747.103348	1.498841339
30	0	0		0	3747.103348	1.498841339
31	0	0		0	3747.103348	1.498841339
Februari						
1	0	0		0	3747.103348	1.498841339
2	0	0		18	3729.103348	1.491641339
3	0	0		18	3711.103348	1.484441339
4	3	39.993181		0	3751.096529	1.500438612
5	17	226.62802		0	3977.724553	1.591089821
6	0	0		0	3977.724553	1.591089821
7	0	0		0	3977.724553	1.591089821
8	0	0		0	3977.724553	1.591089821
9	9	119.97954		0	4097.704096	1.639081638
10	6	79.986362		0	4177.690457	1.671076183
11	0	0		0	4177.690457	1.671076183
12	0	0		0	4177.690457	1.671076183
13	0	0		0	4177.690457	1.671076183
14	0	0		18	4159.690457	1.663876183
15	0	0		18	4141.690457	1.656676183
16	0	0		18	4123.690457	1.649476183
17	4	53.324241		0	4177.014698	1.670805879
18	2	26.662121		0	4203.676819	1.681470727
19	0	0		0	4203.676819	1.681470727
20	0	0		0	4203.676819	1.681470727
21	0	0		0	4203.676819	1.681470727
22	30	399.93181		0	4603.608626	1.84144345
23	20	266.62121		0	4870.229831	1.948091932
24	35	466.58711		0	5336.81694	2.134726776
25	41	546.57347		0	5883.39041	2.353356164
26	37	493.24923	1300	0	5076.639639	2.030655856
27	0	0		0	5076.639639	2.030655856
28	10	133.3106		0	5209.950242	2.083980097
Maret						
1	12	159.97272		0	5369.922965	2.147969186
2	31	413.26287		0	5783.185833	2.313274333
3	35	466.58711	1300	0	4949.772941	1.979909177
4	35	466.58711		0	5416.36005	2.16654402
5	39	519.91135		0	5936.2714	2.37450856
6	0	0		0	5936.2714	2.37450856
7	13	173.30378		0	6109.575183	2.443830073
8	0	0		0	6109.575183	2.443830073
9	11	146.64166	1300	0	4956.216846	1.982486738



10	24	319.94545	1300	0	3976.162292	1.590464917
11	53	706.54619		0	4682.708485	1.873083394
12	0	0		0	4682.708485	1.873083394
13	31	413.26287	1300	0	3795.971353	1.518388541
14	37	493.24923	1300	0	2989.220582	1.195688233
15	42	559.90453	1300	18	2231.125113	0.892450045
16	0	0		0	2231.125113	0.892450045
17	0	0		0	2231.125113	0.892450045
18	15	199.9659		0	2431.091016	0.972436407
19	20	266.62121		0	2697.712221	1.079084889
20	0	0		18	2679.712221	1.071884889
21	15	199.9659		0	2879.678125	1.15187125
22	0	0		0	2879.678125	1.15187125
23	0	0		0	2879.678125	1.15187125
24	0	0		0	2879.678125	1.15187125
25	0	0		18	2861.678125	1.14467125
26	0	0		18	2843.678125	1.13747125
27	0	0		18	2825.678125	1.13027125
28	20	266.62121		0	3092.29933	1.236919732
29	0	0		0	3092.29933	1.236919732
30	15	199.9659		0	3292.265234	1.316906094
31	0	0		0	3292.265234	1.316906094
April						
1	0	0		0	3292.265234	1.316906094
2	0	0		0	3292.265234	1.316906094
3	0	0		18	3274.265234	1.309706094
4	0	0		18	3256.265234	1.302506094
5	0	0		18	3238.265234	1.295306094
6	0	0		18	3220.265234	1.288106094
7	0	0		18	3202.265234	1.280906094
8	0	0		18	3184.265234	1.273706094
9	0	0		18	3166.265234	1.266506094
10	4	53.324241		0	3219.589475	1.28783579
11	0	0		0	3219.589475	1.28783579
12	0	0		0	3219.589475	1.28783579
13	9	119.97954		0	3339.569017	1.335827607
14	0	0		0	3339.569017	1.335827607
15	0	0		0	3339.569017	1.335827607
16	0	0		0	3339.569017	1.335827607
17	0	0		18	3321.569017	1.328627607
18	0	0		18	3303.569017	1.321427607
19	0	0		18	3285.569017	1.314227607
20	0	0		18	3267.569017	1.307027607
21	0	0		18	3249.569017	1.299827607
22	0	0		18	3231.569017	1.292627607
23	0	0		18	3213.569017	1.285427607
24	0	0		18	3195.569017	1.278227607
25	0	0		18	3177.569017	1.271027607
26	21	279.95227		0	3457.521282	1.383008513
27	0	0		0	3457.521282	1.383008513
28	0	0		0	3457.521282	1.383008513
29	0	0		0	3457.521282	1.383008513
30	0	0		18	3439.521282	1.375808513

Mei						
1	0	0		18	3421.521282	1.368608513
2	0	0		18	3403.521282	1.361408513
3	0	0		18	3385.521282	1.354208513
4	0	0		18	3367.521282	1.347008513
5	0	0		18	3349.521282	1.339808513
6	0	0		18	3331.521282	1.332608513
7	0	0		18	3313.521282	1.325408513
8	0	0		18	3295.521282	1.318208513
9	0	0		18	3277.521282	1.311008513
10	0	0		18	3259.521282	1.303808513
11	0	0		18	3241.521282	1.296608513
12	0	0		18	3223.521282	1.289408513
13	0	0		18	3205.521282	1.282208513
14	0	0		18	3187.521282	1.275008513
15	0	0		18	3169.521282	1.267808513
16	12	159.97272		0	3329.494005	1.331797602
17	36	479.91817	1300	0	2509.412174	1.00376487
18	0	0		0	2509.412174	1.00376487
19	0	0		0	2509.412174	1.00376487
20	0	0		0	2509.412174	1.00376487
21	0	0		18	2491.412174	0.99656487
22	0	0		18	2473.412174	0.98936487
23	0	0		18	2455.412174	0.98216487
24	0	0		18	2437.412174	0.97496487
25	0	0		18	2419.412174	0.96776487
26	9	119.97954		0	2539.391717	1.015756687
27	0	0		0	2539.391717	1.015756687
28	0	0		0	2539.391717	1.015756687
29	0	0		0	2539.391717	1.015756687
30	7	93.317422		0	2632.709138	1.053083655
31	0	0		0	2632.709138	1.053083655
Juni						
1	0	0		0	2632.709138	1.053083655
2	0	0		0	2632.709138	1.053083655
3	0	0		18	2614.709138	1.045883655
4	0	0		18	2596.709138	1.038683655
5	0	0		18	2578.709138	1.031483655
6	0	0		18	2560.709138	1.024283655
7	0	0		18	2542.709138	1.017083655
8	0	0		18	2524.709138	1.009883655
9	0	0		18	2506.709138	1.002683655
10	0	0		18	2488.709138	0.995483655
11	45	599.89771		18	3070.60685	1.22824274
12	0	0		18	3052.60685	1.22104274
13	0	0		18	3034.60685	1.21384274
14	0	0		18	3016.60685	1.20664274
15	0	0		18	2998.60685	1.19944274
16	0	0		18	2980.60685	1.19224274
17	0	0		18	2962.60685	1.18504274
18	0	0		18	2944.60685	1.17784274
19	0	0		18	2926.60685	1.17064274
20	0	0		18	2908.60685	1.16344274
21	0	0		18	2890.60685	1.15624274
22	0	0		18	2872.60685	1.14904274
23	0	0		18	2854.60685	1.14184274
24	0	0		18	2836.60685	1.13464274
25	0	0		18	2818.60685	1.12744274
26	0	0		18	2800.60685	1.12024274
27	0	0		18	2782.60685	1.11304274
28	0	0		18	2764.60685	1.10584274
29	0	0		18	2746.60685	1.09864274
30	0	0		18	2728.60685	1.09144274
Juli						
1	0	0		18	2710.60685	1.08424274
2	0	0		18	2692.60685	1.07704274
3	0	0		18	2674.60685	1.06984274
4	0	0		18	2656.60685	1.06264274
5	0	0		18	2638.60685	1.05544274
6	0	0		18	2620.60685	1.04824274
7	0	0		18	2602.60685	1.04104274
8	0	0		18	2584.60685	1.03384274
9	0	0		18	2566.60685	1.02664274
10	0	0		18	2548.60685	1.01944274

11	0	0		18	2530.60685	1.01224274
12	0	0		18	2512.60685	1.00504274
13	0	0		18	2494.60685	0.99784274
14	0	0		18	2476.60685	0.99064274
15	0	0		18	2458.60685	0.98344274
16	0	0		18	2440.60685	0.97624274
17	0	0		18	2422.60685	0.96904274
18	0	0		18	2404.60685	0.96184274
19	0	0		18	2386.60685	0.95464274
20	0	0		18	2368.60685	0.94744274
21	0	0		18	2350.60685	0.94024274
22	0	0		18	2332.60685	0.93304274
23	0	0		18	2314.60685	0.92584274
24	0	0		18	2296.60685	0.91864274
25	0	0		18	2278.60685	0.91144274
26	0	0		18	2260.60685	0.90424274
27	0	0		18	2242.60685	0.89704274
28	0	0		18	2224.60685	0.88984274
29	0	0		18	2206.60685	0.88264274
30	0	0		18	2188.60685	0.87544274
31	0	0		18	2170.60685	0.86824274
Agustus						
1	0	0		18	2152.60685	0.86104274
2	0	0		18	2134.60685	0.85384274
3	0	0		18	2116.60685	0.84664274
4	0	0		18	2098.60685	0.83944274
5	0	0		18	2080.60685	0.83224274
6	0	0		18	2062.60685	0.82504274
7	0	0		18	2044.60685	0.81784274
8	0	0		18	2026.60685	0.81064274
9	0	0		18	2008.60685	0.80344274
10	0	0		18	1990.60685	0.79624274
11	0	0		18	1972.60685	0.78904274
12	0	0		18	1954.60685	0.78184274
13	0	0		18	1936.60685	0.77464274
14	0	0		18	1918.60685	0.76744274
15	0	0		18	1900.60685	0.76024274
16	0	0		18	1882.60685	0.75304274
17	0	0		18	1864.60685	0.74584274
18	0	0		18	1846.60685	0.73864274
19	0	0		18	1828.60685	0.73144274
20	0	0		18	1810.60685	0.72424274
21	0	0		18	1792.60685	0.71704274
22	0	0		18	1774.60685	0.70984274
23	0	0		18	1756.60685	0.70264274
24	0	0		18	1738.60685	0.69544274
25	0	0		18	1720.60685	0.68824274
26	0	0		18	1702.60685	0.68104274
27	0	0		18	1684.60685	0.67384274
28	0	0		18	1666.60685	0.66664274
29	0	0		18	1648.60685	0.65944274
30	0	0		18	1630.60685	0.65224274
31	0	0		18	1612.60685	0.64504274

September						
1	0	0		18	1594.60685	0.63784274
2	0	0		18	1576.60685	0.63064274
3	0	0		18	1558.60685	0.62344274
4	0	0		18	1540.60685	0.61624274
5	0	0		18	1522.60685	0.60904274
6	0	0		18	1504.60685	0.60184274
7	0	0		18	1486.60685	0.59464274
8	0	0		18	1468.60685	0.58744274
9	0	0		18	1450.60685	0.58024274
10	0	0		18	1432.60685	0.57304274
11	0	0		18	1414.60685	0.56584274
12	0	0		18	1396.60685	0.55864274
13	0	0		18	1378.60685	0.55144274
14	0	0		18	1360.60685	0.54424274
15	0	0		18	1342.60685	0.53704274
16	0	0		18	1324.60685	0.52984274
17	0	0		18	1306.60685	0.52264274
18	0	0		18	1288.60685	0.51544274
19	0	0		18	1270.60685	0.50824274
20	0	0		18	1252.60685	0.50104274
21	0	0		18	1234.60685	0.49384274
22	0	0		18	1216.60685	0.48664274
23	0	0		18	1198.60685	0.47944274
24	0	0		18	1180.60685	0.47224274
25	0	0		18	1162.60685	0.46504274
26	0	0		18	1144.60685	0.45784274
27	0	0		18	1126.60685	0.45064274
28	0	0		18	1108.60685	0.44344274
29	0	0		18	1090.60685	0.43624274
30	0	0		18	1072.60685	0.42904274
Oktober						
1	0	0		18	1054.60685	0.42184274
2	0	0		18	1036.60685	0.41464274
3	0	0		18	1018.60685	0.40744274
4	0	0		18	1000.60685	0.40024274
5	0	0		18	982.6068496	0.39304274
6	0	0		18	964.6068496	0.38584274
7	0	0		18	946.6068496	0.37864274
8	0	0		18	928.6068496	0.37144274
9	0	0		18	910.6068496	0.36424274
10	0	0		18	892.6068496	0.35704274
11	0	0		18	874.6068496	0.34984274
12	0	0		18	856.6068496	0.34264274
13	0	0		18	838.6068496	0.33544274
14	0	0		18	820.6068496	0.32824274
15	0	0		18	802.6068496	0.32104274
16	0	0		18	784.6068496	0.31384274
17	0	0		18	766.6068496	0.30664274
18	0	0		18	748.6068496	0.29944274
19	0	0		18	730.6068496	0.29224274
20	0	0		18	712.6068496	0.28504274
21	0	0		18	694.6068496	0.27784274
22	0	0		18	676.6068496	0.27064274
23	0	0		18	658.6068496	0.26344274
24	0	0		18	640.6068496	0.25624274
25	0	0		18	622.6068496	0.24904274
26	0	0		18	604.6068496	0.24184274
27	0	0		18	586.6068496	0.23464274
28	0	0		18	568.6068496	0.22744274
29	0	0		18	550.6068496	0.22024274
30	0	0		18	532.6068496	0.21304274
31	0	0		18	514.6068496	0.20584274
November						
1	0	0		18	496.6068496	0.19864274
2	0	0		18	478.6068496	0.19144274
3	0	0		18	460.6068496	0.18424274
4	0	0		18	442.6068496	0.17704274
5	0	0		18	424.6068496	0.16984274
6	0	0		18	406.6068496	0.16264274
7	0	0		18	388.6068496	0.15544274
8	0	0		18	370.6068496	0.14824274
9	0	0		18	352.6068496	0.14104274
10	0	0		18	334.6068496	0.13384274

11	0	0		18	316.6068496	0.12664274
12	0	0		18	298.6068496	0.11944274
13	0	0		18	280.6068496	0.11224274
14	0	0		18	262.6068496	0.10504274
15	0	0		18	244.6068496	0.09784274
16	0	0		18	226.6068496	0.09064274
17	0	0		18	208.6068496	0.08344274
18	0	0		18	190.6068496	0.07624274
19	0	0		18	172.6068496	0.06904274
20	0	0		18	154.6068496	0.06184274
21	0	0		18	136.6068496	0.05464274
22	0	0		18	118.6068496	0.04744274
23	0	0		18	100.6068496	0.04024274
24	0	0		18	82.60684963	0.03304274
25	0	0		18	64.60684963	0.02584274
26	15	199.9659		0	264.5727534	0.105829101
27	43	573.23559		0	837.8083441	0.335123338
28	14	186.63484		0	1024.443188	0.409777275
29	0	0		0	1024.443188	0.409777275
30	0	0		0	1024.443188	0.409777275
Desember						
1	0	0		0	1024.443188	0.409777275
2	10	133.3106		0	1157.75379	0.463101516
3	15	199.9659		0	1357.719694	0.543087878
4	0	0		0	1357.719694	0.543087878
5	0	0		0	1357.719694	0.543087878
6	13	173.30378		0	1531.023477	0.612409391
7	0	0		0	1531.023477	0.612409391
8	0	0		0	1531.023477	0.612409391
9	0	0		0	1531.023477	0.612409391
10	17	226.62802		0	1757.651501	0.703060601
11	0	0		0	1757.651501	0.703060601
12	17	226.62802		0	1984.279526	0.79371181
13	0	0		0	1984.279526	0.79371181
14	0	0		0	1984.279526	0.79371181
15	10	133.3106		0	2117.590128	0.847036051
16	0	0		0	2117.590128	0.847036051
17	0	0		0	2117.590128	0.847036051
18	0	0		0	2117.590128	0.847036051
19	0	0		18	2099.590128	0.839836051
20	0	0		18	2081.590128	0.832636051
21	0	0		18	2063.590128	0.825436051
22	11	146.64166		0	2210.231791	0.884092716
23	0	0		0	2210.231791	0.884092716
24	0	0		0	2210.231791	0.884092716
25	58	773.20149		0	2983.433285	1.193373314
26	0	0		0	2983.433285	1.193373314
27	0	0		0	2983.433285	1.193373314
28	0	0		0	2983.433285	1.193373314
29	40	533.24241		0	3516.675695	1.406670278
30	0	0		0	3516.675695	1.406670278
31	0	0		0	3516.675695	1.406670278

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	25	333.27651		0	3849.952202	1.539980881
2	0	0		0	3849.952202	1.539980881
3	0	0		0	3849.952202	1.539980881
4	50	666.55301		0	4516.505214	1.806602086
5	0	0		0	4516.505214	1.806602086
6	12	159.97272		0	4676.477937	1.870591175
7	15	199.9659		0	4876.443841	1.950577536
8	10	133.3106		0	5009.754443	2.003901777
9	0	0		0	5009.754443	2.003901777
10	11	146.64166		0	5156.396106	2.062558442
11	28	373.26969		0	5529.665793	2.211866317
12	0	0		0	5529.665793	2.211866317
13	0	0		0	5529.665793	2.211866317
14	20	266.62121		0	5796.286998	2.318514799
15	10	133.3106		0	5929.597601	2.37183904
16	15	199.9659		0	6129.563504	2.451825402
17	0	0		0	6129.563504	2.451825402
18	0	0		18	6111.563504	2.444625402
19	7	93.317422		18	6186.880926	2.47475237
20	6	79.986362	1300	18	4948.867288	1.979546915
21	0	0		18	4930.867288	1.972346915
22	4	53.324241		18	4966.191529	1.986476611
23	0	0		18	4948.191529	1.979276611
24	0	0		18	4930.191529	1.972076611
25	0	0		18	4912.191529	1.964876611
26	38	506.58029	1300	0	4118.771818	1.647508727
27	5	66.655301		0	4185.427119	1.674170848
28	0	0		0	4185.427119	1.674170848
29	0	0		0	4185.427119	1.674170848
30	0	0		0	4185.427119	1.674170848
31	0	0		18	4167.427119	1.666970848
Februari						
1	0	0		18	4149.427119	1.659770848
2	0	0		18	4131.427119	1.652570848
3	28	373.26969		0	4504.696806	1.801878723
4	0	0		0	4504.696806	1.801878723
5	0	0		0	4504.696806	1.801878723
6	0	0		0	4504.696806	1.801878723
7	0	0		18	4486.696806	1.794678723
8	0	0		18	4468.696806	1.787478723
9	35	466.58711		0	4935.283915	1.974113566
10	47	626.55983	1300	0	4261.843747	1.704737499
11	0	0		0	4261.843747	1.704737499
12	0	0		0	4261.843747	1.704737499
13	0	0		0	4261.843747	1.704737499
14	23	306.61439		0	4568.458133	1.827383253
15	0	0		0	4568.458133	1.827383253
16	0	0		0	4568.458133	1.827383253
17	0	0		0	4568.458133	1.827383253
18	0	0		18	4550.458133	1.820183253
19	0	0		18	4532.458133	1.812983253
20	0	0		18	4514.458133	1.805783253
21	38	506.58029		0	5021.038422	2.008415369
22	0	0		0	5021.038422	2.008415369
23	0	0		0	5021.038422	2.008415369
24	10	133.3106		0	5154.349025	2.06173961
25	4	53.324241		0	5207.673266	2.083069306
26	0	0		0	5207.673266	2.083069306
27	0	0		0	5207.673266	2.083069306
28	0	0		0	5207.673266	2.083069306
Maret						
1	0	0		18	5189.673266	2.075869306
2	0	0		18	5171.673266	2.068669306
3	20	266.62121		0	5438.294471	2.175317788
4	26	346.60757		0	5784.902037	2.313960815
5	0	0		0	5784.902037	2.313960815
6	20	266.62121	1300	0	4751.523242	1.900609297
7	65	866.51892		0	5618.042158	2.247216863
8	78	1039.8227	1300	0	5357.864858	2.143145943
9	22	293.28333		0	5651.148183	2.260459273

10	16	213.29696		0	5864.445147	2.345778059
11	0	0		0	5864.445147	2.345778059
12	0	0		0	5864.445147	2.345778059
13	0	0		0	5864.445147	2.345778059
14	0	0		18	5846.445147	2.338578059
15	0	0		18	5828.445147	2.331378059
16	5	66.655301		0	5895.100449	2.358040179
17	0	0		0	5895.100449	2.358040179
18	12	159.97272		0	6055.073172	2.422029269
19	0	0		0	6055.073172	2.422029269
20	0	0		0	6055.073172	2.422029269
21	37	493.24923	1300	0	5248.322401	2.09932896
22	59	786.53255	1300	0	4734.854956	1.893941982
23	0	0		0	4734.854956	1.893941982
24	0	0		0	4734.854956	1.893941982
25	0	0		0	4734.854956	1.893941982
26	0	0		18	4716.854956	1.886741982
27	0	0		18	4698.854956	1.879541982
28	0	0		18	4680.854956	1.872341982
29	0	0		18	4662.854956	1.865141982
30	12	159.97272		0	4822.827679	1.929131071
31	0	0		0	4822.827679	1.929131071
April						
1	0	0		0	4822.827679	1.929131071
2	17	226.62802		0	5049.455703	2.019782281
3	0	0		0	5049.455703	2.019782281
4	0	0		0	5049.455703	2.019782281
5	23	306.61439		0	5356.070089	2.142428035
6	0	0		0	5356.070089	2.142428035
7	0	0		0	5356.070089	2.142428035
8	0	0		0	5356.070089	2.142428035
9	0	0		18	5338.070089	2.135228035
10	0	0		18	5320.070089	2.128028035
11	15	199.9659		0	5520.035992	2.208014397
12	0	0		0	5520.035992	2.208014397
13	20	266.62121		0	5786.657197	2.314662879
14	0	0		0	5786.657197	2.314662879
15	0	0		0	5786.657197	2.314662879
16	0	0		0	5786.657197	2.314662879
17	0	0		18	5768.657197	2.307462879
18	0	0		18	5750.657197	2.300262879
19	0	0		18	5732.657197	2.293062879
20	0	0		18	5714.657197	2.285862879
21	0	0		18	5696.657197	2.278662879
22	0	0		18	5678.657197	2.271462879
23	0	0		18	5660.657197	2.264262879
24	0	0		18	5642.657197	2.257062879
25	0	0		18	5624.657197	2.249862879
26	0	0		18	5606.657197	2.242662879
27	0	0		18	5588.657197	2.235462879
28	0	0		18	5570.657197	2.228262879
29	0	0		18	5552.657197	2.221062879
30	5	66.655301		0	5619.312499	2.247724999

Mei						
1	0	0		0	5619.312499	2.247724999
2	44	586.56665	1300	0	4905.87915	1.96235166
3	0	0		0	4905.87915	1.96235166
4	0	0		0	4905.87915	1.96235166
5	0	0		0	4905.87915	1.96235166
6	0	0		18	4887.87915	1.95515166
7	20	266.62121		0	5154.500355	2.061800142
8	0	0		0	5154.500355	2.061800142
9	0	0		0	5154.500355	2.061800142
10	0	0		0	5154.500355	2.061800142
11	0	0		18	5136.500355	2.054600142
12	0	0		18	5118.500355	2.047400142
13	0	0		18	5100.500355	2.040200142
14	0	0		18	5082.500355	2.033000142
15	0	0		18	5064.500355	2.025800142
16	0	0		18	5046.500355	2.018600142
17	0	0		18	5028.500355	2.011400142
18	0	0		18	5010.500355	2.004200142
19	0	0		18	4992.500355	1.997000142
20	0	0		18	4974.500355	1.989800142
21	0	0		18	4956.500355	1.982600142
22	0	0		18	4938.500355	1.975400142
23	0	0		18	4920.500355	1.968200142
24	0	0		18	4902.500355	1.961000142
25	0	0		18	4884.500355	1.953800142
26	0	0		18	4866.500355	1.946600142
27	0	0		18	4848.500355	1.939400142
28	0	0		18	4830.500355	1.932200142
29	0	0		18	4812.500355	1.925000142
30	0	0		18	4794.500355	1.917800142
31	0	0		18	4776.500355	1.910600142
Juni						
1	0	0		18	4758.500355	1.903400142
2	0	0		18	4740.500355	1.896200142
3	0	0		18	4722.500355	1.889000142
4	0	0		18	4704.500355	1.881800142
5	15	199.9659		0	4904.466258	1.961786503
6	25	333.27651		0	5237.742765	2.095097106
7	30	399.93181		0	5637.674572	2.255069829
8	5	66.655301		0	5704.329873	2.281731949
9	0	0		0	5704.329873	2.281731949
10	0	0		0	5704.329873	2.281731949
11	0	0		0	5704.329873	2.281731949
12	0	0		18	5686.329873	2.274531949
13	0	0		18	5668.329873	2.267331949
14	0	0		18	5650.329873	2.260131949
15	8	106.64848		0	5756.978355	2.302791342
16	0	0		0	5756.978355	2.302791342
17	0	0		0	5756.978355	2.302791342
18	0	0		0	5756.978355	2.302791342
19	0	0		18	5738.978355	2.295591342
20	10	133.3106		0	5872.288958	2.348915583
21	0	0		0	5872.288958	2.348915583
22	15	199.9659		0	6072.254862	2.428901945
23	20	266.62121	1300	0	5038.876067	2.015550427
24	0	0		0	5038.876067	2.015550427
25	0	0		0	5038.876067	2.015550427
26	0	0		0	5038.876067	2.015550427
27	0	0		18	5020.876067	2.008350427
28	0	0		18	5002.876067	2.001150427
29	0	0		18	4984.876067	1.993950427
30	0	0		18	4966.876067	1.986750427
Juli						
1	0	0		18	4948.876067	1.979550427
2	0	0		18	4930.876067	1.972350427
3	0	0		18	4912.876067	1.965150427
4	0	0		18	4894.876067	1.957950427
5	0	0		18	4876.876067	1.950750427
6	15	199.9659		0	5076.84197	2.030736788
7	0	0		0	5076.84197	2.030736788
8	0	0		0	5076.84197	2.030736788
9	0	0		0	5076.84197	2.030736788
10	0	0		18	5058.84197	2.023536788



11	20	266.62121	1300	0	4025.463175	1.61018527
12	45	599.89771		0	4625.360887	1.850144355
13	0	0		0	4625.360887	1.850144355
14	0	0		0	4625.360887	1.850144355
15	0	0		0	4625.360887	1.850144355
16	0	0		18	4607.360887	1.842944355
17	0	0		18	4589.360887	1.835744355
18	10	133.3106		0	4722.671489	1.889068596
19	0	0		0	4722.671489	1.889068596
20	0	0		0	4722.671489	1.889068596
21	0	0		0	4722.671489	1.889068596
22	0	0		18	4704.671489	1.881868596
23	0	0		18	4686.671489	1.874668596
24	0	0		18	4668.671489	1.867468596
25	0	0		18	4650.671489	1.860268596
26	0	0		18	4632.671489	1.853068596
27	0	0		18	4614.671489	1.845868596
28	0	0		18	4596.671489	1.838668596
29	0	0		18	4578.671489	1.831468596
30	0	0		18	4560.671489	1.824268596
31	0	0		18	4542.671489	1.817068596
Agustus						
1	0	0		18	4524.671489	1.809868596
2	0	0		18	4506.671489	1.802668596
3	20	266.62121		0	4773.292694	1.909317078
4	0	0		0	4773.292694	1.909317078
5	0	0		0	4773.292694	1.909317078
6	0	0		0	4773.292694	1.909317078
7	0	0		18	4755.292694	1.902117078
8	0	0		18	4737.292694	1.894917078
9	0	0		18	4719.292694	1.887717078
10	0	0		18	4701.292694	1.880517078
11	0	0		18	4683.292694	1.873317078
12	0	0		18	4665.292694	1.866117078
13	0	0		18	4647.292694	1.858917078
14	0	0		18	4629.292694	1.851717078
15	0	0		18	4611.292694	1.844517078
16	0	0		18	4593.292694	1.837317078
17	0	0		18	4575.292694	1.830117078
18	0	0		18	4557.292694	1.822917078
19	0	0		18	4539.292694	1.815717078
20	0	0		18	4521.292694	1.808517078
21	0	0		18	4503.292694	1.801317078
22	0	0		18	4485.292694	1.794117078
23	0	0		18	4467.292694	1.786917078
24	0	0		18	4449.292694	1.779717078
25	0	0		18	4431.292694	1.772517078
26	0	0		18	4413.292694	1.765317078
27	0	0		18	4395.292694	1.758117078
28	0	0		18	4377.292694	1.750917078
29	0	0		18	4359.292694	1.743717078
30	0	0		18	4341.292694	1.736517078
31	0	0		18	4323.292694	1.729317078

September						
1	0	0		18	4305.292694	1.722117078
2	0	0		18	4287.292694	1.714917078
3	0	0		18	4269.292694	1.707717078
4	0	0		18	4251.292694	1.700517078
5	0	0		18	4233.292694	1.693317078
6	0	0		18	4215.292694	1.686117078
7	0	0		18	4197.292694	1.678917078
8	0	0		18	4179.292694	1.671717078
9	0	0		18	4161.292694	1.664517078
10	0	0		18	4143.292694	1.657317078
11	0	0		18	4125.292694	1.650117078
12	0	0		18	4107.292694	1.642917078
13	0	0		18	4089.292694	1.635717078
14	0	0		18	4071.292694	1.628517078
15	0	0		18	4053.292694	1.621317078
16	0	0		18	4035.292694	1.614117078
17	0	0		18	4017.292694	1.606917078
18	0	0		18	3999.292694	1.599717078
19	0	0		18	3981.292694	1.592517078
20	0	0		18	3963.292694	1.585317078
21	0	0		18	3945.292694	1.578117078
22	0	0		18	3927.292694	1.570917078
23	0	0		18	3909.292694	1.563717078
24	0	0		18	3891.292694	1.556517078
25	0	0		18	3873.292694	1.549317078
26	0	0		18	3855.292694	1.542117078
27	0	0		18	3837.292694	1.534917078
28	0	0		18	3819.292694	1.527717078
29	0	0		18	3801.292694	1.520517078
30	0	0		18	3783.292694	1.513317078
Oktober						
1	0	0		18	3765.292694	1.506117078
2	0	0		18	3747.292694	1.498917078
3	0	0		18	3729.292694	1.491717078
4	0	0		18	3711.292694	1.484517078
5	0	0		18	3693.292694	1.477317078
6	0	0		18	3675.292694	1.470117078
7	0	0		18	3657.292694	1.462917078
8	0	0		18	3639.292694	1.455717078
9	0	0		18	3621.292694	1.448517078
10	0	0		18	3603.292694	1.441317078
11	0	0		18	3585.292694	1.434117078
12	0	0		18	3567.292694	1.426917078
13	0	0		18	3549.292694	1.419717078
14	0	0		18	3531.292694	1.412517078
15	0	0		18	3513.292694	1.405317078
16	0	0		18	3495.292694	1.398117078
17	0	0		18	3477.292694	1.390917078
18	18	239.95908		0	3717.251779	1.486900711
19	20	266.62121		0	3983.872984	1.593549193
20	0	0		0	3983.872984	1.593549193
21	0	0		0	3983.872984	1.593549193
22	0	0		0	3983.872984	1.593549193
23	10	133.3106		0	4117.183586	1.646873434
24	0	0		0	4117.183586	1.646873434
25	0	0		0	4117.183586	1.646873434
26	0	0		0	4117.183586	1.646873434
27	0	0		18	4099.183586	1.639673434
28	0	0		18	4081.183586	1.632473434
29	0	0		18	4063.183586	1.625273434
30	0	0		18	4045.183586	1.618073434
31	0	0		18	4027.183586	1.610873434
November						
1	0	0		18	4009.183586	1.603673434
2	0	0		18	3991.183586	1.596473434
3	0	0		18	3973.183586	1.589273434
4	0	0		18	3955.183586	1.582073434
5	0	0		18	3937.183586	1.574873434
6	0	0		18	3919.183586	1.567673434
7	0	0		18	3901.183586	1.560473434
8	0	0		18	3883.183586	1.553273434
9	0	0		18	3865.183586	1.546073434
10	0	0		18	3847.183586	1.538873434

11	0	0		18	3829.183586	1.531673434
12	0	0		18	3811.183586	1.524473434
13	0	0		18	3793.183586	1.517273434
14	0	0		18	3775.183586	1.510073434
15	0	0		18	3757.183586	1.502873434
16	0	0		18	3739.183586	1.495673434
17	0	0		18	3721.183586	1.488473434
18	0	0		18	3703.183586	1.481273434
19	0	0		18	3685.183586	1.474073434
20	26	346.60757		0	4031.791153	1.612716461
21	7	93.317422		0	4125.108574	1.65004343
22	0	0		0	4125.108574	1.65004343
23	0	0		0	4125.108574	1.65004343
24	0	0		0	4125.108574	1.65004343
25	0	0		18	4107.108574	1.64284343
26	0	0		18	4089.108574	1.63564343
27	0	0		18	4071.108574	1.62844343
28	0	0		18	4053.108574	1.62124343
29	0	0		18	4035.108574	1.61404343
30	0	0		18	4017.108574	1.60684343
Desember						
1	25	333.27651		0	4350.385081	1.740154032
2	20	266.62121		0	4617.006286	1.846802514
3	0	0		0	4617.006286	1.846802514
4	8	106.64848		0	4723.654768	1.889461907
5	0	0		0	4723.654768	1.889461907
6	0	0		0	4723.654768	1.889461907
7	26	346.60757		0	5070.262334	2.028104934
8	10	133.3106		0	5203.572937	2.081429175
9	0	0		0	5203.572937	2.081429175
10	0	0		0	5203.572937	2.081429175
11	0	0		0	5203.572937	2.081429175
12	25	333.27651		0	5536.849443	2.214739777
13	20	266.62121		0	5803.470648	2.321388259
14	0	0		0	5803.470648	2.321388259
15	110	1466.4166	1300	0	5969.887275	2.38795491
16	0	0		0	5969.887275	2.38795491
17	10	133.3106		0	6103.197878	2.441279151
18	0	0		0	6103.197878	2.441279151
19	10	133.3106	1300	0	4936.50848	1.974603392
20	5	66.655301		0	5003.163782	2.001265513
21	20	266.62121		0	5269.784987	2.107913995
22	0	0		0	5269.784987	2.107913995
23	15	199.9659		0	5469.75089	2.187900356
24	0	0		0	5469.75089	2.187900356
25	0	0		0	5469.75089	2.187900356
26	0	0		0	5469.75089	2.187900356
27	10	133.3106		0	5603.061493	2.241224597
28	0	0		0	5603.061493	2.241224597
29	0	0		0	5603.061493	2.241224597
30	0	0		0	5603.061493	2.241224597
31	0	0		18	5585.061493	2.234024597

## PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	15	199.965904		0	5785.027397	2.314010959
2	20	266.621205	1300	0	4751.648602	1.900659441
3	10	133.310603		0	4884.959204	1.953983682
4	140	1866.34844	1300	0	5451.307639	2.180523056
5	13	173.303783		0	5624.611422	2.249844569
6	25	333.276506		0	5957.887929	2.383155171
7	0	0		0	5957.887929	2.383155171
8	0	0		0	5957.887929	2.383155171
9	0	0		0	5957.887929	2.383155171
10	10	133.310603		0	6091.198531	2.436479412
11	0	0		0	6091.198531	2.436479412
12	20	266.621205	1300	0	5057.819736	2.023127894
13	0	0		0	5057.819736	2.023127894
14	80	1066.48482	1300	0	4824.304556	1.929721822
15	0	0		0	4824.304556	1.929721822
16	30	399.931808		0	5224.236364	2.089694545
17	0	0		0	5224.236364	2.089694545
18	0	0		0	5224.236364	2.089694545
19	0	0		0	5224.236364	2.089694545
20	0	0		18	5206.236364	2.082494545
21	0	0		18	5188.236364	2.075294545
22	0	0		18	5170.236364	2.068094545
23	0	0		18	5152.236364	2.060894545
24	0	0		18	5134.236364	2.053694545
25	0	0		18	5116.236364	2.046494545
26	0	0		18	5098.236364	2.039294545
27	0	0		18	5080.236364	2.032094545
28	15	199.965904		0	5280.202267	2.112080907
29	0	0		0	5280.202267	2.112080907
30	0	0		0	5280.202267	2.112080907
31	0	0		0	5280.202267	2.112080907
Februari						
1	20	266.621205		0	5546.823472	2.218729389
2	0	0		0	5546.823472	2.218729389
3	0	0		0	5546.823472	2.218729389
4	0	0		0	5546.823472	2.218729389
5	0	0		18	5528.823472	2.211529389
6	27	359.938627	1300	0	4588.762099	1.83550484
7	50	666.553013		0	5255.315112	2.102126045
8	0	0		0	5255.315112	2.102126045
9	30	399.931808		0	5655.246919	2.262098768
10	0	0		0	5655.246919	2.262098768
11	15	199.965904		0	5855.212823	2.342085129
12	6	79.9863615		0	5935.199184	2.374079674
13	20	266.621205		0	6201.820389	2.480728156
14	0	0		0	6201.820389	2.480728156
15	0	0		0	6201.820389	2.480728156
16	0	0		0	6201.820389	2.480728156
17	15	199.965904	1300	0	5101.786293	2.040714517
18	20	266.621205		0	5368.407498	2.147362999
19	0	0		0	5368.407498	2.147362999
20	40	533.24241		0	5901.649908	2.360659963
21	15	199.965904		0	6101.615812	2.440646325
22	57	759.870434	1300	0	5561.486246	2.224594498
23	0	0		0	5561.486246	2.224594498
24	0	0		0	5561.486246	2.224594498
25	30	399.931808		0	5961.418054	2.384567221
26	47	626.559832	1300	0	5287.977885	2.115191154
27	5	66.6553013		0	5354.633187	2.141853275
28	27	359.938627		0	5714.571813	2.285828725
Maret						
1	47	626.559832	1300	0	5041.131645	2.016452658
2	0	0		0	5041.131645	2.016452658
3	38	506.58029		0	5547.711935	2.219084774
4	0	0		0	5547.711935	2.219084774
5	0	0		0	5547.711935	2.219084774
6	0	0		0	5547.711935	2.219084774
7	40	533.24241		0	6080.954345	2.432381738
8	0	0		0	6080.954345	2.432381738
9	0	0		0	6080.954345	2.432381738

10	0	0		0	6080.954345	2.432381738
11	27	359.938627	1300	0	5140.892971	2.056357189
12	0	0		0	5140.892971	2.056357189
13	0	0		0	5140.892971	2.056357189
14	0	0		0	5140.892971	2.056357189
15	30	399.931808	1300	0	4240.824779	1.696329912
16	0	0		0	4240.824779	1.696329912
17	0	0		0	4240.824779	1.696329912
18	20	266.621205		0	4507.445984	1.802978394
19	45	599.897711		0	5107.343695	2.042937478
20	50	666.553013	1300	0	4473.896708	1.789558683
21	0	0		0	4473.896708	1.789558683
22	0	0		0	4473.896708	1.789558683
23	0	0		0	4473.896708	1.789558683
24	12	159.972723		0	4633.869431	1.853547772
25	0	0		0	4633.869431	1.853547772
26	0	0		0	4633.869431	1.853547772
27	0	0		0	4633.869431	1.853547772
28	45	599.897711		0	5233.767142	2.093506857
29	60	799.863615	1300	0	4733.630757	1.893452303
30	0	0		0	4733.630757	1.893452303
31	0	0		0	4733.630757	1.893452303
April						
1	0	0		0	4733.630757	1.893452303
2	0	0		18	4715.630757	1.886252303
3	0	0		18	4697.630757	1.879052303
4	0	0		18	4679.630757	1.871852303
5	0	0		18	4661.630757	1.864652303
6	0	0		18	4643.630757	1.857452303
7	0	0		18	4625.630757	1.850252303
8	0	0		18	4607.630757	1.843052303
9	40	533.24241		0	5140.873167	2.056349267
10	15	199.965904		0	5340.839071	2.136335628
11	0	0		0	5340.839071	2.136335628
12	25	333.276506		0	5674.115577	2.269646231
13	0	0		0	5674.115577	2.269646231
14	0	0		0	5674.115577	2.269646231
15	0	0		0	5674.115577	2.269646231
16	0	0		18	5656.115577	2.262446231
17	12	159.972723		0	5816.0883	2.32643532
18	0	0		0	5816.0883	2.32643532
19	0	0		0	5816.0883	2.32643532
20	0	0		0	5816.0883	2.32643532
21	8	106.648482		0	5922.736782	2.369094713
22	0	0		0	5922.736782	2.369094713
23	0	0		0	5922.736782	2.369094713
24	0	0		0	5922.736782	2.369094713
25	0	0		18	5904.736782	2.361894713
26	0	0		18	5886.736782	2.354694713
27	0	0		18	5868.736782	2.347494713
28	0	0		18	5850.736782	2.340294713
29	0	0		18	5832.736782	2.333094713
30	58	773.201495	1300	0	5305.938276	2.122375311

Mei						
1	0	0		0	5305.938276	2.122375311
2	0	0		0	5305.938276	2.122375311
3	0	0		0	5305.938276	2.122375311
4	0	0		18	5287.938276	2.115175311
5	0	0		18	5269.938276	2.107975311
6	0	0		18	5251.938276	2.100775311
7	0	0		18	5233.938276	2.093575311
8	0	0		18	5215.938276	2.086375311
9	0	0		18	5197.938276	2.079175311
10	30	399.931808		0	5597.870084	2.239148034
11	0	0		0	5597.870084	2.239148034
12	0	0		0	5597.870084	2.239148034
13	0	0		0	5597.870084	2.239148034
14	0	0		18	5579.870084	2.231948034
15	0	0		18	5561.870084	2.224748034
16	0	0		18	5543.870084	2.217548034
17	0	0		18	5525.870084	2.210348034
18	0	0		18	5507.870084	2.203148034
19	0	0		18	5489.870084	2.195948034
20	0	0		18	5471.870084	2.188748034
21	0	0		18	5453.870084	2.181548034
22	0	0		18	5435.870084	2.174348034
23	0	0		18	5417.870084	2.167148034
24	0	0		18	5399.870084	2.159948034
25	0	0		18	5381.870084	2.152748034
26	0	0		18	5363.870084	2.145548034
27	0	0		18	5345.870084	2.138348034
28	0	0		18	5327.870084	2.131148034
29	20	266.621205		0	5594.491289	2.237796516
30	0	0		0	5594.491289	2.237796516
31	5	66.6553013		0	5661.14659	2.264458636
Juni						
1	5	66.6553013		0	5727.801891	2.291120757
2	0	0		0	5727.801891	2.291120757
3	0	0		0	5727.801891	2.291120757
4	0	0		0	5727.801891	2.291120757
5	0	0		18	5709.801891	2.283920757
6	0	0		18	5691.801891	2.276720757
7	0	0		18	5673.801891	2.269520757
8	0	0		18	5655.801891	2.262320757
9	0	0		18	5637.801891	2.255120757
10	0	0		18	5619.801891	2.247920757
11	0	0		18	5601.801891	2.240720757
12	0	0		18	5583.801891	2.233520757
13	0	0		18	5565.801891	2.226320757
14	0	0		18	5547.801891	2.219120757
15	0	0		18	5529.801891	2.211920757
16	0	0		18	5511.801891	2.204720757
17	0	0		18	5493.801891	2.197520757
18	0	0		18	5475.801891	2.190320757
19	0	0		18	5457.801891	2.183120757
20	0	0		18	5439.801891	2.175920757
21	0	0		18	5421.801891	2.168720757
22	0	0		18	5403.801891	2.161520757
23	0	0		18	5385.801891	2.154320757
24	0	0		18	5367.801891	2.147120757
25	0	0		18	5349.801891	2.139920757
26	0	0		18	5331.801891	2.132720757
27	0	0		18	5313.801891	2.125520757
28	0	0		18	5295.801891	2.118320757
29	0	0		18	5277.801891	2.111120757
30	0	0		18	5259.801891	2.103920757
Juli						
1	0	0		18	5241.801891	2.096720757
2	0	0		18	5223.801891	2.089520757
3	0	0		18	5205.801891	2.082320757
4	0	0		18	5187.801891	2.075120757
5	0	0		18	5169.801891	2.067920757
6	0	0		18	5151.801891	2.060720757
7	0	0		18	5133.801891	2.053520757
8	0	0		18	5115.801891	2.046320757
9	0	0		18	5097.801891	2.039120757
10	0	0		18	5079.801891	2.031920757

11	0	0		18	5061.801891	2.024720757
12	0	0		18	5043.801891	2.017520757
13	0	0		18	5025.801891	2.010320757
14	0	0		18	5007.801891	2.003120757
15	0	0		18	4989.801891	1.995920757
16	0	0		18	4971.801891	1.988720757
17	0	0		18	4953.801891	1.981520757
18	0	0		18	4935.801891	1.974320757
19	0	0		18	4917.801891	1.967120757
20	0	0		18	4899.801891	1.959920757
21	0	0		18	4881.801891	1.952720757
22	0	0		18	4863.801891	1.945520757
23	0	0		18	4845.801891	1.938320757
24	0	0		18	4827.801891	1.931120757
25	0	0		18	4809.801891	1.923920757
26	0	0		18	4791.801891	1.916720757
27	0	0		18	4773.801891	1.909520757
28	0	0		18	4755.801891	1.902320757
29	0	0		18	4737.801891	1.895120757
30	0	0		18	4719.801891	1.887920757
31	0	0		18	4701.801891	1.880720757
Agustus						
1	0	0		18	4683.801891	1.873520757
2	0	0		18	4665.801891	1.866320757
3	0	0		18	4647.801891	1.859120757
4	0	0		18	4629.801891	1.851920757
5	0	0		18	4611.801891	1.844720757
6	0	0		18	4593.801891	1.837520757
7	0	0		18	4575.801891	1.830320757
8	0	0		18	4557.801891	1.823120757
9	0	0		18	4539.801891	1.815920757
10	0	0		18	4521.801891	1.808720757
11	0	0		18	4503.801891	1.801520757
12	0	0		18	4485.801891	1.794320757
13	0	0		18	4467.801891	1.787120757
14	0	0		18	4449.801891	1.779920757
15	0	0		18	4431.801891	1.772720757
16	0	0		18	4413.801891	1.765520757
17	0	0		18	4395.801891	1.758320757
18	0	0		18	4377.801891	1.751120757
19	0	0		18	4359.801891	1.743920757
20	0	0		18	4341.801891	1.736720757
21	0	0		18	4323.801891	1.729520757
22	0	0		18	4305.801891	1.722320757
23	0	0		18	4287.801891	1.715120757
24	0	0		18	4269.801891	1.707920757
25	0	0		18	4251.801891	1.700720757
26	0	0		18	4233.801891	1.693520757
27	0	0		18	4215.801891	1.686320757
28	0	0		18	4197.801891	1.679120757
29	0	0		18	4179.801891	1.671920757
30	0	0		18	4161.801891	1.664720757
31	0	0		18	4143.801891	1.657520757

September						
1	0	0		18	4125.801891	1.650320757
2	0	0		18	4107.801891	1.643120757
3	0	0		18	4089.801891	1.635920757
4	0	0		18	4071.801891	1.628720757
5	0	0		18	4053.801891	1.621520757
6	0	0		18	4035.801891	1.614320757
7	0	0		18	4017.801891	1.607120757
8	0	0		18	3999.801891	1.599920757
9	0	0		18	3981.801891	1.592720757
10	0	0		18	3963.801891	1.585520757
11	0	0		18	3945.801891	1.578320757
12	0	0		18	3927.801891	1.571120757
13	0	0		18	3909.801891	1.563920757
14	0	0		18	3891.801891	1.556720757
15	0	0		18	3873.801891	1.549520757
16	0	0		18	3855.801891	1.542320757
17	0	0		18	3837.801891	1.535120757
18	0	0		18	3819.801891	1.527920757
19	0	0		18	3801.801891	1.520720757
20	0	0		18	3783.801891	1.513520757
21	0	0		18	3765.801891	1.506320757
22	0	0		18	3747.801891	1.499120757
23	0	0		18	3729.801891	1.491920757
24	0	0		18	3711.801891	1.484720757
25	0	0		18	3693.801891	1.477520757
26	0	0		18	3675.801891	1.470320757
27	0	0		18	3657.801891	1.463120757
28	0	0		18	3639.801891	1.455920757
29	0	0		18	3621.801891	1.448720757
30	0	0		18	3603.801891	1.441520757
Oktober						
1	0	0		18	3585.801891	1.434320757
2	0	0		18	3567.801891	1.427120757
3	0	0		18	3549.801891	1.419920757
4	0	0		18	3531.801891	1.412720757
5	0	0		18	3513.801891	1.405520757
6	0	0		18	3495.801891	1.398320757
7	0	0		18	3477.801891	1.391120757
8	0	0		18	3459.801891	1.383920757
9	0	0		18	3441.801891	1.376720757
10	0	0		18	3423.801891	1.369520757
11	0	0		18	3405.801891	1.362320757
12	0	0		18	3387.801891	1.355120757
13	0	0		18	3369.801891	1.347920757
14	0	0		18	3351.801891	1.340720757
15	0	0		18	3333.801891	1.333520757
16	0	0		18	3315.801891	1.326320757
17	0	0		18	3297.801891	1.319120757
18	0	0		18	3279.801891	1.311920757
19	0	0		18	3261.801891	1.304720757
20	0	0		18	3243.801891	1.297520757
21	0	0		18	3225.801891	1.290320757
22	0	0		18	3207.801891	1.283120757
23	0	0		18	3189.801891	1.275920757
24	0	0		18	3171.801891	1.268720757
25	0	0		18	3153.801891	1.261520757
26	0	0		18	3135.801891	1.254320757
27	0	0		18	3117.801891	1.247120757
28	0	0		18	3099.801891	1.239920757
29	0	0		18	3081.801891	1.232720757
30	0	0		18	3063.801891	1.225520757
31	0	0		18	3045.801891	1.218320757
November						
1	0	0		18	3027.801891	1.211120757
2	0	0		18	3009.801891	1.203920757
3	0	0		18	2991.801891	1.196720757
4	0	0		18	2973.801891	1.189520757
5	0	0		18	2955.801891	1.182320757
6	0	0		18	2937.801891	1.175120757
7	0	0		18	2919.801891	1.167920757
8	0	0		18	2901.801891	1.160720757
9	0	0		18	2883.801891	1.153520757
10	0	0		18	2865.801891	1.146320757



11	0	0		18	2847.801891	1.139120757
12	0	0		18	2829.801891	1.131920757
13	0	0		18	2811.801891	1.124720757
14	0	0		18	2793.801891	1.117520757
15	0	0		18	2775.801891	1.110320757
16	0	0		18	2757.801891	1.103120757
17	0	0		18	2739.801891	1.095920757
18	0	0		18	2721.801891	1.088720757
19	0	0		18	2703.801891	1.081520757
20	0	0		18	2685.801891	1.074320757
21	0	0		18	2667.801891	1.067120757
22	0	0		18	2649.801891	1.059920757
23	0	0		18	2631.801891	1.052720757
24	0	0		18	2613.801891	1.045520757
25	0	0		18	2595.801891	1.038320757
26	0	0		18	2577.801891	1.031120757
27	0	0		18	2559.801891	1.023920757
28	0	0		18	2541.801891	1.016720757
29	0	0		18	2523.801891	1.009520757
30	0	0		18	2505.801891	1.002320757
Desember						
1	0	0		18	2487.801891	0.995120757
2	0	0		18	2469.801891	0.987920757
3	7	93.3174218		18	2545.119313	1.018047725
4	0	0		18	2527.119313	1.010847725
5	0	0		18	2509.119313	1.003647725
6	0	0		18	2491.119313	0.996447725
7	0	0		18	2473.119313	0.989247725
8	0	0		18	2455.119313	0.982047725
9	0	0		18	2437.119313	0.974847725
10	0	0		18	2419.119313	0.967647725
11	0	0		18	2401.119313	0.960447725
12	0	0		18	2383.119313	0.953247725
13	0	0		18	2365.119313	0.946047725
14	0	0		18	2347.119313	0.938847725
15	0	0		18	2329.119313	0.931647725
16	0	0		18	2311.119313	0.924447725
17	20	266.621205		18	2559.740518	1.023896207
18	0	0		18	2541.740518	1.016696207
19	0	0		18	2523.740518	1.009496207
20	0	0		18	2505.740518	1.002296207
21	0	0		18	2487.740518	0.995096207
22	0	0		18	2469.740518	0.987896207
23	0	0		18	2451.740518	0.980696207
24	0	0		18	2433.740518	0.973496207
25	0	0		18	2415.740518	0.966296207
26	0	0		18	2397.740518	0.959096207
27	0	0		18	2379.740518	0.951896207
28	0	0		18	2361.740518	0.944696207
29	50	666.553013		0	3028.293531	1.211317412
30	80	1066.48482		0	4094.778351	1.63791134
31	0	0		0	4094.778351	1.63791134

## PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	15	199.965904		0	5785.027397	2.314010959
2	20	266.621205	1300	0	4751.648602	1.900659441
3	10	133.310603		0	4884.959204	1.953983682
4	140	1866.34844	1300	0	5451.307639	2.180523056
5	13	173.303783		0	5624.611422	2.249844569
6	25	333.276506		0	5957.887929	2.383155171
7	0	0		0	5957.887929	2.383155171
8	0	0		0	5957.887929	2.383155171
9	0	0		0	5957.887929	2.383155171
10	10	133.310603		0	6091.198531	2.436479412
11	0	0		0	6091.198531	2.436479412
12	20	266.621205	1300	0	5057.819736	2.023127894
13	0	0		0	5057.819736	2.023127894
14	80	1066.48482	1300	0	4824.304556	1.929721822
15	0	0		0	4824.304556	1.929721822
16	30	399.931808		0	5224.236364	2.089694545
17	0	0		0	5224.236364	2.089694545
18	0	0		0	5224.236364	2.089694545
19	0	0		0	5224.236364	2.089694545
20	0	0		18	5206.236364	2.082494545
21	0	0		18	5188.236364	2.075294545
22	0	0		18	5170.236364	2.068094545
23	0	0		18	5152.236364	2.060894545
24	0	0		18	5134.236364	2.053694545
25	0	0		18	5116.236364	2.046494545
26	0	0		18	5098.236364	2.039294545
27	0	0		18	5080.236364	2.032094545
28	15	199.965904		0	5280.202267	2.112080907
29	0	0		0	5280.202267	2.112080907
30	0	0		0	5280.202267	2.112080907
31	0	0		0	5280.202267	2.112080907
Februari						
1	20	266.621205		0	5546.823472	2.218729389
2	0	0		0	5546.823472	2.218729389
3	0	0		0	5546.823472	2.218729389
4	0	0		0	5546.823472	2.218729389
5	0	0		18	5528.823472	2.211529389
6	27	359.938627	1300	0	4588.762099	1.83550484
7	50	666.553013		0	5255.315112	2.102126045
8	0	0		0	5255.315112	2.102126045
9	30	399.931808		0	5655.246919	2.262098768
10	0	0		0	5655.246919	2.262098768
11	15	199.965904		0	5855.212823	2.342085129
12	6	79.9863615		0	5935.199184	2.374079674
13	20	266.621205		0	6201.820389	2.480728156
14	0	0		0	6201.820389	2.480728156
15	0	0		0	6201.820389	2.480728156
16	0	0		0	6201.820389	2.480728156
17	15	199.965904	1300	0	5101.786293	2.040714517
18	20	266.621205		0	5368.407498	2.147362999
19	0	0		0	5368.407498	2.147362999
20	40	533.24241		0	5901.649908	2.360659963
21	15	199.965904		0	6101.615812	2.440646325
22	57	759.870434	1300	0	5561.486246	2.224594498
23	0	0		0	5561.486246	2.224594498
24	0	0		0	5561.486246	2.224594498
25	30	399.931808		0	5961.418054	2.384567221
26	47	626.559832	1300	0	5287.977885	2.115191154
27	5	66.6553013		0	5354.633187	2.141853275
28	27	359.938627		0	5714.571813	2.285828725
Maret						
1	47	626.559832	1300	0	5041.131645	2.016452658
2	0	0		0	5041.131645	2.016452658
3	38	506.58029		0	5547.711935	2.219084774
4	0	0		0	5547.711935	2.219084774
5	0	0		0	5547.711935	2.219084774
6	0	0		0	5547.711935	2.219084774
7	40	533.24241		0	6080.954345	2.432381738
8	0	0		0	6080.954345	2.432381738
9	0	0		0	6080.954345	2.432381738

10	0	0		0	6080.954345	2.432381738
11	27	359.938627	1300	0	5140.892971	2.056357189
12	0	0		0	5140.892971	2.056357189
13	0	0		0	5140.892971	2.056357189
14	0	0		0	5140.892971	2.056357189
15	30	399.931808	1300	0	4240.824779	1.696329912
16	0	0		0	4240.824779	1.696329912
17	0	0		0	4240.824779	1.696329912
18	20	266.621205		0	4507.445984	1.802978394
19	45	599.897711		0	5107.343695	2.042937478
20	50	666.553013	1300	0	4473.896708	1.789558683
21	0	0		0	4473.896708	1.789558683
22	0	0		0	4473.896708	1.789558683
23	0	0		0	4473.896708	1.789558683
24	12	159.972723		0	4633.869431	1.853547772
25	0	0		0	4633.869431	1.853547772
26	0	0		0	4633.869431	1.853547772
27	0	0		0	4633.869431	1.853547772
28	45	599.897711		0	5233.767142	2.093506857
29	60	799.863615	1300	0	4733.630757	1.893452303
30	0	0		0	4733.630757	1.893452303
31	0	0		0	4733.630757	1.893452303
April						
1	0	0		0	4733.630757	1.893452303
2	0	0		18	4715.630757	1.886252303
3	0	0		18	4697.630757	1.879052303
4	0	0		18	4679.630757	1.871852303
5	0	0		18	4661.630757	1.864652303
6	0	0		18	4643.630757	1.857452303
7	0	0		18	4625.630757	1.850252303
8	0	0		18	4607.630757	1.843052303
9	40	533.24241		0	5140.873167	2.056349267
10	15	199.965904		0	5340.839071	2.136335628
11	0	0		0	5340.839071	2.136335628
12	25	333.276506		0	5674.115577	2.269646231
13	0	0		0	5674.115577	2.269646231
14	0	0		0	5674.115577	2.269646231
15	0	0		0	5674.115577	2.269646231
16	0	0		18	5656.115577	2.262446231
17	12	159.972723		0	5816.0883	2.32643532
18	0	0		0	5816.0883	2.32643532
19	0	0		0	5816.0883	2.32643532
20	0	0		0	5816.0883	2.32643532
21	8	106.648482		0	5922.736782	2.369094713
22	0	0		0	5922.736782	2.369094713
23	0	0		0	5922.736782	2.369094713
24	0	0		0	5922.736782	2.369094713
25	0	0		18	5904.736782	2.361894713
26	0	0		18	5886.736782	2.354694713
27	0	0		18	5868.736782	2.347494713
28	0	0		18	5850.736782	2.340294713
29	0	0		18	5832.736782	2.333094713
30	58	773.201495	1300	0	5305.938276	2.122375311

Mei						
1	0	0		0	5305.938276	2.122375311
2	0	0		0	5305.938276	2.122375311
3	0	0		0	5305.938276	2.122375311
4	0	0		18	5287.938276	2.115175311
5	0	0		18	5269.938276	2.107975311
6	0	0		18	5251.938276	2.100775311
7	0	0		18	5233.938276	2.093575311
8	0	0		18	5215.938276	2.086375311
9	0	0		18	5197.938276	2.079175311
10	30	399.931808		0	5597.870084	2.239148034
11	0	0		0	5597.870084	2.239148034
12	0	0		0	5597.870084	2.239148034
13	0	0		0	5597.870084	2.239148034
14	0	0		18	5579.870084	2.231948034
15	0	0		18	5561.870084	2.224748034
16	0	0		18	5543.870084	2.217548034
17	0	0		18	5525.870084	2.210348034
18	0	0		18	5507.870084	2.203148034
19	0	0		18	5489.870084	2.195948034
20	0	0		18	5471.870084	2.188748034
21	0	0		18	5453.870084	2.181548034
22	0	0		18	5435.870084	2.174348034
23	0	0		18	5417.870084	2.167148034
24	0	0		18	5399.870084	2.159948034
25	0	0		18	5381.870084	2.152748034
26	0	0		18	5363.870084	2.145548034
27	0	0		18	5345.870084	2.138348034
28	0	0		18	5327.870084	2.131148034
29	20	266.621205		0	5594.491289	2.237796516
30	0	0		0	5594.491289	2.237796516
31	5	66.6553013		0	5661.14659	2.264458636
Juni						
1	5	66.6553013		0	5727.801891	2.291120757
2	0	0		0	5727.801891	2.291120757
3	0	0		0	5727.801891	2.291120757
4	0	0		0	5727.801891	2.291120757
5	0	0		18	5709.801891	2.283920757
6	0	0		18	5691.801891	2.276720757
7	0	0		18	5673.801891	2.269520757
8	0	0		18	5655.801891	2.262320757
9	0	0		18	5637.801891	2.255120757
10	0	0		18	5619.801891	2.247920757
11	0	0		18	5601.801891	2.240720757
12	0	0		18	5583.801891	2.233520757
13	0	0		18	5565.801891	2.226320757
14	0	0		18	5547.801891	2.219120757
15	0	0		18	5529.801891	2.211920757
16	0	0		18	5511.801891	2.204720757
17	0	0		18	5493.801891	2.197520757
18	0	0		18	5475.801891	2.190320757
19	0	0		18	5457.801891	2.183120757
20	0	0		18	5439.801891	2.175920757
21	0	0		18	5421.801891	2.168720757
22	0	0		18	5403.801891	2.161520757
23	0	0		18	5385.801891	2.154320757
24	0	0		18	5367.801891	2.147120757
25	0	0		18	5349.801891	2.139920757
26	0	0		18	5331.801891	2.132720757
27	0	0		18	5313.801891	2.125520757
28	0	0		18	5295.801891	2.118320757
29	0	0		18	5277.801891	2.111120757
30	0	0		18	5259.801891	2.103920757
Juli						
1	0	0		18	5241.801891	2.096720757
2	0	0		18	5223.801891	2.089520757
3	0	0		18	5205.801891	2.082320757
4	0	0		18	5187.801891	2.075120757
5	0	0		18	5169.801891	2.067920757
6	0	0		18	5151.801891	2.060720757
7	0	0		18	5133.801891	2.053520757
8	0	0		18	5115.801891	2.046320757
9	0	0		18	5097.801891	2.039120757
10	0	0		18	5079.801891	2.031920757

11	0	0		18	5061.801891	2.024720757
12	0	0		18	5043.801891	2.017520757
13	0	0		18	5025.801891	2.010320757
14	0	0		18	5007.801891	2.003120757
15	0	0		18	4989.801891	1.995920757
16	0	0		18	4971.801891	1.988720757
17	0	0		18	4953.801891	1.981520757
18	0	0		18	4935.801891	1.974320757
19	0	0		18	4917.801891	1.967120757
20	0	0		18	4899.801891	1.959920757
21	0	0		18	4881.801891	1.952720757
22	0	0		18	4863.801891	1.945520757
23	0	0		18	4845.801891	1.938320757
24	0	0		18	4827.801891	1.931120757
25	0	0		18	4809.801891	1.923920757
26	0	0		18	4791.801891	1.916720757
27	0	0		18	4773.801891	1.909520757
28	0	0		18	4755.801891	1.902320757
29	0	0		18	4737.801891	1.895120757
30	0	0		18	4719.801891	1.887920757
31	0	0		18	4701.801891	1.880720757
Agustus						
1	0	0		18	4683.801891	1.873520757
2	0	0		18	4665.801891	1.866320757
3	0	0		18	4647.801891	1.859120757
4	0	0		18	4629.801891	1.851920757
5	0	0		18	4611.801891	1.844720757
6	0	0		18	4593.801891	1.837520757
7	0	0		18	4575.801891	1.830320757
8	0	0		18	4557.801891	1.823120757
9	0	0		18	4539.801891	1.815920757
10	0	0		18	4521.801891	1.808720757
11	0	0		18	4503.801891	1.801520757
12	0	0		18	4485.801891	1.794320757
13	0	0		18	4467.801891	1.787120757
14	0	0		18	4449.801891	1.779920757
15	0	0		18	4431.801891	1.772720757
16	0	0		18	4413.801891	1.765520757
17	0	0		18	4395.801891	1.758320757
18	0	0		18	4377.801891	1.751120757
19	0	0		18	4359.801891	1.743920757
20	0	0		18	4341.801891	1.736720757
21	0	0		18	4323.801891	1.729520757
22	0	0		18	4305.801891	1.722320757
23	0	0		18	4287.801891	1.715120757
24	0	0		18	4269.801891	1.707920757
25	0	0		18	4251.801891	1.700720757
26	0	0		18	4233.801891	1.693520757
27	0	0		18	4215.801891	1.686320757
28	0	0		18	4197.801891	1.679120757
29	0	0		18	4179.801891	1.671920757
30	0	0		18	4161.801891	1.664720757
31	0	0		18	4143.801891	1.657520757

September						
1	0	0		18	4125.801891	1.650320757
2	0	0		18	4107.801891	1.643120757
3	0	0		18	4089.801891	1.635920757
4	0	0		18	4071.801891	1.628720757
5	0	0		18	4053.801891	1.621520757
6	0	0		18	4035.801891	1.614320757
7	0	0		18	4017.801891	1.607120757
8	0	0		18	3999.801891	1.599920757
9	0	0		18	3981.801891	1.592720757
10	0	0		18	3963.801891	1.585520757
11	0	0		18	3945.801891	1.578320757
12	0	0		18	3927.801891	1.571120757
13	0	0		18	3909.801891	1.563920757
14	0	0		18	3891.801891	1.556720757
15	0	0		18	3873.801891	1.549520757
16	0	0		18	3855.801891	1.542320757
17	0	0		18	3837.801891	1.535120757
18	0	0		18	3819.801891	1.527920757
19	0	0		18	3801.801891	1.520720757
20	0	0		18	3783.801891	1.513520757
21	0	0		18	3765.801891	1.506320757
22	0	0		18	3747.801891	1.499120757
23	0	0		18	3729.801891	1.491920757
24	0	0		18	3711.801891	1.484720757
25	0	0		18	3693.801891	1.477520757
26	0	0		18	3675.801891	1.470320757
27	0	0		18	3657.801891	1.463120757
28	0	0		18	3639.801891	1.455920757
29	0	0		18	3621.801891	1.448720757
30	0	0		18	3603.801891	1.441520757
Oktober						
1	0	0		18	3585.801891	1.434320757
2	0	0		18	3567.801891	1.427120757
3	0	0		18	3549.801891	1.419920757
4	0	0		18	3531.801891	1.412720757
5	0	0		18	3513.801891	1.405520757
6	0	0		18	3495.801891	1.398320757
7	0	0		18	3477.801891	1.391120757
8	0	0		18	3459.801891	1.383920757
9	0	0		18	3441.801891	1.376720757
10	0	0		18	3423.801891	1.369520757
11	0	0		18	3405.801891	1.362320757
12	0	0		18	3387.801891	1.355120757
13	0	0		18	3369.801891	1.347920757
14	0	0		18	3351.801891	1.340720757
15	0	0		18	3333.801891	1.333520757
16	0	0		18	3315.801891	1.326320757
17	0	0		18	3297.801891	1.319120757
18	0	0		18	3279.801891	1.311920757
19	0	0		18	3261.801891	1.304720757
20	0	0		18	3243.801891	1.297520757
21	0	0		18	3225.801891	1.290320757
22	0	0		18	3207.801891	1.283120757
23	0	0		18	3189.801891	1.275920757
24	0	0		18	3171.801891	1.268720757
25	0	0		18	3153.801891	1.261520757
26	0	0		18	3135.801891	1.254320757
27	0	0		18	3117.801891	1.247120757
28	0	0		18	3099.801891	1.239920757
29	0	0		18	3081.801891	1.232720757
30	0	0		18	3063.801891	1.225520757
31	0	0		18	3045.801891	1.218320757
November						
1	0	0		18	3027.801891	1.211120757
2	0	0		18	3009.801891	1.203920757
3	0	0		18	2991.801891	1.196720757
4	0	0		18	2973.801891	1.189520757
5	0	0		18	2955.801891	1.182320757
6	0	0		18	2937.801891	1.175120757
7	0	0		18	2919.801891	1.167920757
8	0	0		18	2901.801891	1.160720757
9	0	0		18	2883.801891	1.153520757
10	0	0		18	2865.801891	1.146320757

11	0	0		18	2847.801891	1.139120757
12	0	0		18	2829.801891	1.131920757
13	0	0		18	2811.801891	1.124720757
14	0	0		18	2793.801891	1.117520757
15	0	0		18	2775.801891	1.110320757
16	0	0		18	2757.801891	1.103120757
17	0	0		18	2739.801891	1.095920757
18	0	0		18	2721.801891	1.088720757
19	0	0		18	2703.801891	1.081520757
20	0	0		18	2685.801891	1.074320757
21	0	0		18	2667.801891	1.067120757
22	0	0		18	2649.801891	1.059920757
23	0	0		18	2631.801891	1.052720757
24	0	0		18	2613.801891	1.045520757
25	0	0		18	2595.801891	1.038320757
26	0	0		18	2577.801891	1.031120757
27	0	0		18	2559.801891	1.023920757
28	0	0		18	2541.801891	1.016720757
29	0	0		18	2523.801891	1.009520757
30	0	0		18	2505.801891	1.002320757
Desember						
1	0	0		18	2487.801891	0.995120757
2	0	0		18	2469.801891	0.987920757
3	7	93.3174218		18	2545.119313	1.018047725
4	0	0		18	2527.119313	1.010847725
5	0	0		18	2509.119313	1.003647725
6	0	0		18	2491.119313	0.996447725
7	0	0		18	2473.119313	0.989247725
8	0	0		18	2455.119313	0.982047725
9	0	0		18	2437.119313	0.974847725
10	0	0		18	2419.119313	0.967647725
11	0	0		18	2401.119313	0.960447725
12	0	0		18	2383.119313	0.953247725
13	0	0		18	2365.119313	0.946047725
14	0	0		18	2347.119313	0.938847725
15	0	0		18	2329.119313	0.931647725
16	0	0		18	2311.119313	0.924447725
17	20	266.621205		18	2559.740518	1.023896207
18	0	0		18	2541.740518	1.016696207
19	0	0		18	2523.740518	1.009496207
20	0	0		18	2505.740518	1.002296207
21	0	0		18	2487.740518	0.995096207
22	0	0		18	2469.740518	0.987896207
23	0	0		18	2451.740518	0.980696207
24	0	0		18	2433.740518	0.973496207
25	0	0		18	2415.740518	0.966296207
26	0	0		18	2397.740518	0.959096207
27	0	0		18	2379.740518	0.951896207
28	0	0		18	2361.740518	0.944696207
29	50	666.553013		0	3028.293531	1.211317412
30	80	1066.48482		0	4094.778351	1.63791134
31	0	0		0	4094.778351	1.63791134

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	0	0		18	4076.778351	1.63071134
2	0	0		18	4058.778351	1.62351134
3	0	0		18	4040.778351	1.61631134
4	0	0		18	4022.778351	1.60911134
5	0	0		18	4004.778351	1.60191134
6	0	0		18	3986.778351	1.59471134
7	0	0		18	3968.778351	1.58751134
8	0	0		18	3950.778351	1.58031134
9	0	0		18	3932.778351	1.57311134
10	0	0		18	3914.778351	1.56591134
11	0	0		18	3896.778351	1.55871134
12	0	0		18	3878.778351	1.55151134
13	0	0		18	3860.778351	1.54431134
14	0	0		18	3842.778351	1.53711134
15	30	399.931808		0	4242.710158	1.697084063
16	0	0		0	4242.710158	1.697084063
17	0	0		0	4242.710158	1.697084063
18	0	0		0	4242.710158	1.697084063
19	15	199.965904		0	4442.676062	1.777070425
20	0	0		0	4442.676062	1.777070425
21	0	0		0	4442.676062	1.777070425
22	0	0		0	4442.676062	1.777070425
23	55	733.208314		0	5175.884376	2.07035375
24	75	999.829519		0	6175.713894	2.470285558
25	0	0		0	6175.713894	2.470285558
26	0	0		0	6175.713894	2.470285558
27	0	0		0	6175.713894	2.470285558
28	0	0		18	6157.713894	2.463085558
29	0	0		18	6139.713894	2.455885558
30	0	0		18	6121.713894	2.448685558
31	67	893.181037	1300	0	5714.894931	2.285957972
Februari						
1	0	0		0	5714.894931	2.285957972
2	0	0		0	5714.894931	2.285957972
3	38	506.58029		0	6221.475221	2.488590088
4	24	319.945446	1300	0	5241.420667	2.096568267
5	16	213.296964		0	5454.717631	2.181887052
6	31	413.262868		0	5867.980498	2.347192199
7	0	0		0	5867.980498	2.347192199
8	0	0		0	5867.980498	2.347192199
9	0	0		0	5867.980498	2.347192199
10	15	199.965904		0	6067.946402	2.427178561
11	0	0		0	6067.946402	2.427178561
12	50	666.553013	1300	0	5434.499415	2.173799766
13	0	0		0	5434.499415	2.173799766
14	0	0		0	5434.499415	2.173799766
15	0	0		0	5434.499415	2.173799766
16	0	0		18	5416.499415	2.166599766
17	0	0		18	5398.499415	2.159399766
18	0	0		18	5380.499415	2.152199766
19	0	0		18	5362.499415	2.144999766
20	0	0		18	5344.499415	2.137799766
21	25	333.276506		0	5677.775921	2.271110368
22	0	0		0	5677.775921	2.271110368
23	0	0		0	5677.775921	2.271110368
24	20	266.621205		0	5944.397126	2.37775885
25	0	0		0	5944.397126	2.37775885
26	23	306.614386	1300	0	4951.011512	1.980404605
27	30	399.931808		0	5350.943319	2.140377328
28	45	599.897711		0	5950.84103	2.380336412
Maret						
1	25	333.276506	1300	0	4984.117537	1.993647015
2	10	133.310603		0	5117.428139	2.046971256
3	0	0		0	5117.428139	2.046971256
4	0	0		0	5117.428139	2.046971256
5	0	0		0	5117.428139	2.046971256
6	0	0		18	5099.428139	2.039771256
7	40	533.24241		0	5632.670549	2.25306822
8	55	733.208314	1300	0	5065.878863	2.026351545
9	0	0		0	5065.878863	2.026351545



10	0	0		0	5065.878863	2.026351545
11	0	0		0	5065.878863	2.026351545
12	0	0		18	5047.878863	2.019151545
13	0	0		18	5029.878863	2.011951545
14	20	266.621205		0	5296.500068	2.118600027
15	0	0		0	5296.500068	2.118600027
16	0	0		0	5296.500068	2.118600027
17	0	0		0	5296.500068	2.118600027
18	0	0		18	5278.500068	2.111400027
19	0	0		18	5260.500068	2.104200027
20	0	0		18	5242.500068	2.097000027
21	39	519.91135		0	5762.411418	2.304964567
22	0	0		0	5762.411418	2.304964567
23	0	0		0	5762.411418	2.304964567
24	0	0		0	5762.411418	2.304964567
25	0	0		18	5744.411418	2.297764567
26	0	0		18	5726.411418	2.290564567
27	0	0		18	5708.411418	2.283364567
28	0	0		18	5690.411418	2.276164567
29	0	0		18	5672.411418	2.268964567
30	20	266.621205		18	5921.032623	2.368413049
31	0	0		18	5903.032623	2.361213049
April						
1	0	0		18	5885.032623	2.354013049
2	0	0		18	5867.032623	2.346813049
3	0	0		18	5849.032623	2.339613049
4	0	0		18	5831.032623	2.332413049
5	0	0		18	5813.032623	2.325213049
6	0	0		18	5795.032623	2.318013049
7	0	0		18	5777.032623	2.310813049
8	0	0		18	5759.032623	2.303613049
9	7	93.3174218		0	5852.350044	2.340940018
10	0	0		0	5852.350044	2.340940018
11	0	0		0	5852.350044	2.340940018
12	0	0		0	5852.350044	2.340940018
13	0	0		18	5834.350044	2.333740018
14	0	0		18	5816.350044	2.326540018
15	0	0		18	5798.350044	2.319340018
16	0	0		18	5780.350044	2.312140018
17	0	0		18	5762.350044	2.304940018
18	0	0		18	5744.350044	2.297740018
19	0	0		18	5726.350044	2.290540018
20	0	0		18	5708.350044	2.283340018
21	0	0		18	5690.350044	2.276140018
22	0	0		18	5672.350044	2.268940018
23	20	266.621205		0	5938.971249	2.3755885
24	0	0		0	5938.971249	2.3755885
25	0	0		0	5938.971249	2.3755885
26	0	0		0	5938.971249	2.3755885
27	0	0		18	5920.971249	2.3683885
28	0	0		18	5902.971249	2.3611885
29	0	0		18	5884.971249	2.3539885
30	0	0		18	5866.971249	2.3467885

Mei						
1	0	0		18	5848.971249	2.3395885
2	0	0		18	5830.971249	2.3323885
3	0	0		18	5812.971249	2.3251885
4	0	0		18	5794.971249	2.3179885
5	0	0		18	5776.971249	2.3107885
6	0	0		18	5758.971249	2.3035885
7	0	0		18	5740.971249	2.2963885
8	0	0		18	5722.971249	2.2891885
9	0	0		18	5704.971249	2.2819885
10	0	0		18	5686.971249	2.2747885
11	0	0		18	5668.971249	2.2675885
12	0	0		18	5650.971249	2.2603885
13	0	0		18	5632.971249	2.2531885
14	0	0		18	5614.971249	2.2459885
15	0	0		18	5596.971249	2.2387885
16	0	0		18	5578.971249	2.2315885
17	0	0		18	5560.971249	2.2243885
18	0	0		18	5542.971249	2.2171885
19	0	0		18	5524.971249	2.2099885
20	0	0		18	5506.971249	2.2027885
21	0	0		18	5488.971249	2.1955885
22	17	226.628024		18	5697.599274	2.279039709
23	0	0		18	5679.599274	2.271839709
24	0	0		18	5661.599274	2.264639709
25	0	0		18	5643.599274	2.257439709
26	0	0		18	5625.599274	2.250239709
27	0	0		18	5607.599274	2.243039709
28	0	0		18	5589.599274	2.235839709
29	0	0		18	5571.599274	2.228639709
30	0	0		18	5553.599274	2.221439709
31	0	0		18	5535.599274	2.214239709
Juni						
1	0	0		18	5517.599274	2.207039709
2	0	0		18	5499.599274	2.199839709
3	0	0		18	5481.599274	2.192639709
4	0	0		18	5463.599274	2.185439709
5	0	0		18	5445.599274	2.178239709
6	0	0		18	5427.599274	2.171039709
7	0	0		18	5409.599274	2.163839709
8	0	0		18	5391.599274	2.156639709
9	0	0		18	5373.599274	2.149439709
10	0	0		18	5355.599274	2.142239709
11	0	0		18	5337.599274	2.135039709
12	0	0		18	5319.599274	2.127839709
13	0	0		18	5301.599274	2.120639709
14	0	0		18	5283.599274	2.113439709
15	0	0		18	5265.599274	2.106239709
16	0	0		18	5247.599274	2.099039709
17	0	0		18	5229.599274	2.091839709
18	0	0		18	5211.599274	2.084639709
19	0	0		18	5193.599274	2.077439709
20	0	0		18	5175.599274	2.070239709
21	0	0		18	5157.599274	2.063039709
22	0	0		18	5139.599274	2.055839709
23	0	0		18	5121.599274	2.048639709
24	0	0		18	5103.599274	2.041439709
25	0	0		18	5085.599274	2.034239709
26	0	0		18	5067.599274	2.027039709
27	0	0		18	5049.599274	2.019839709
28	0	0		18	5031.599274	2.012639709
29	15	199.965904		0	5231.565177	2.092626071
30	0	0		0	5231.565177	2.092626071
Juli						
1	0	0		0	5231.565177	2.092626071
2	0	0		0	5231.565177	2.092626071
3	0	0		18	5213.565177	2.085426071
4	0	0		18	5195.565177	2.078226071
5	0	0		18	5177.565177	2.071026071
6	0	0		18	5159.565177	2.063826071
7	0	0		18	5141.565177	2.056626071
8	0	0		18	5123.565177	2.049426071
9	0	0		18	5105.565177	2.042226071
10	0	0		18	5087.565177	2.035026071

11	0	0		18	5069.565177	2.027826071
12	0	0		18	5051.565177	2.020626071
13	0	0		18	5033.565177	2.013426071
14	0	0		18	5015.565177	2.006226071
15	0	0		18	4997.565177	1.999026071
16	0	0		18	4979.565177	1.991826071
17	0	0		18	4961.565177	1.984626071
18	0	0		18	4943.565177	1.977426071
19	0	0		18	4925.565177	1.970226071
20	0	0		18	4907.565177	1.963026071
21	0	0		18	4889.565177	1.955826071
22	0	0		18	4871.565177	1.948626071
23	0	0		18	4853.565177	1.941426071
24	0	0		18	4835.565177	1.934226071
25	0	0		18	4817.565177	1.927026071
26	0	0		18	4799.565177	1.919826071
27	0	0		18	4781.565177	1.912626071
28	0	0		18	4763.565177	1.905426071
29	0	0		18	4745.565177	1.898226071
30	0	0		18	4727.565177	1.891026071
31	0	0		18	4709.565177	1.883826071
Agustus						
1	0	0		18	4691.565177	1.876626071
2	0	0		18	4673.565177	1.869426071
3	0	0		18	4655.565177	1.862226071
4	0	0		18	4637.565177	1.855026071
5	0	0		18	4619.565177	1.847826071
6	0	0		18	4601.565177	1.840626071
7	0	0		18	4583.565177	1.833426071
8	0	0		18	4565.565177	1.826226071
9	0	0		18	4547.565177	1.819026071
10	0	0		18	4529.565177	1.811826071
11	0	0		18	4511.565177	1.804626071
12	0	0		18	4493.565177	1.797426071
13	0	0		18	4475.565177	1.790226071
14	0	0		18	4457.565177	1.783026071
15	0	0		18	4439.565177	1.775826071
16	0	0		18	4421.565177	1.768626071
17	0	0		18	4403.565177	1.761426071
18	0	0		18	4385.565177	1.754226071
19	0	0		18	4367.565177	1.747026071
20	0	0		18	4349.565177	1.739826071
21	0	0		18	4331.565177	1.732626071
22	0	0		18	4313.565177	1.725426071
23	0	0		18	4295.565177	1.718226071
24	0	0		18	4277.565177	1.711026071
25	0	0		18	4259.565177	1.703826071
26	0	0		18	4241.565177	1.696626071
27	0	0		18	4223.565177	1.689426071
28	0	0		18	4205.565177	1.682226071
29	0	0		18	4187.565177	1.675026071
30	0	0		18	4169.565177	1.667826071
31	0	0		18	4151.565177	1.660626071

September						
1	0	0		18	4133.565177	1.653426071
2	0	0		18	4115.565177	1.646226071
3	0	0		18	4097.565177	1.639026071
4	0	0		18	4079.565177	1.631826071
5	0	0		18	4061.565177	1.624626071
6	0	0		18	4043.565177	1.617426071
7	0	0		18	4025.565177	1.610226071
8	0	0		18	4007.565177	1.603026071
9	0	0		18	3989.565177	1.595826071
10	0	0		18	3971.565177	1.588626071
11	0	0		18	3953.565177	1.581426071
12	0	0		18	3935.565177	1.574226071
13	0	0		18	3917.565177	1.567026071
14	0	0		18	3899.565177	1.559826071
15	0	0		18	3881.565177	1.552626071
16	0	0		18	3863.565177	1.545426071
17	0	0		18	3845.565177	1.538226071
18	0	0		18	3827.565177	1.531026071
19	0	0		18	3809.565177	1.523826071
20	0	0		18	3791.565177	1.516626071
21	0	0		18	3773.565177	1.509426071
22	0	0		18	3755.565177	1.502226071
23	0	0		18	3737.565177	1.495026071
24	0	0		18	3719.565177	1.487826071
25	0	0		18	3701.565177	1.480626071
26	0	0		18	3683.565177	1.473426071
27	0	0		18	3665.565177	1.466226071
28	0	0		18	3647.565177	1.459026071
29	0	0		18	3629.565177	1.451826071
30	0	0		18	3611.565177	1.444626071
Oktober						
1	0	0		18	3593.565177	1.437426071
2	0	0		18	3575.565177	1.430226071
3	0	0		18	3557.565177	1.423026071
4	0	0		18	3539.565177	1.415826071
5	0	0		18	3521.565177	1.408626071
6	0	0		18	3503.565177	1.401426071
7	0	0		18	3485.565177	1.394226071
8	0	0		18	3467.565177	1.387026071
9	0	0		18	3449.565177	1.379826071
10	0	0		18	3431.565177	1.372626071
11	0	0		18	3413.565177	1.365426071
12	0	0		18	3395.565177	1.358226071
13	0	0		18	3377.565177	1.351026071
14	0	0		18	3359.565177	1.343826071
15	0	0		18	3341.565177	1.336626071
16	0	0		18	3323.565177	1.329426071
17	0	0		18	3305.565177	1.322226071
18	0	0		18	3287.565177	1.315026071
19	0	0		18	3269.565177	1.307826071
20	0	0		18	3251.565177	1.300626071
21	0	0		18	3233.565177	1.293426071
22	0	0		18	3215.565177	1.286226071
23	0	0		18	3197.565177	1.279026071
24	0	0		18	3179.565177	1.271826071
25	0	0		18	3161.565177	1.264626071
26	0	0		18	3143.565177	1.257426071
27	0	0		18	3125.565177	1.250226071
28	0	0		18	3107.565177	1.243026071
29	0	0		18	3089.565177	1.235826071
30	0	0		18	3071.565177	1.228626071
31	0	0		18	3053.565177	1.221426071
November						
1	8	106.648482		0	3160.213659	1.264085464
2	5	66.6553013		0	3226.868961	1.290747584
3	11	146.641663		0	3373.510623	1.349404249
4	15	199.965904		0	3573.476527	1.429390611
5	0	0		0	3573.476527	1.429390611
6	3	39.9931808		0	3613.469708	1.445387883
7	2	26.6621205		0	3640.131828	1.456052731
8	4	53.324241		0	3693.456069	1.477382428
9	0	0		0	3693.456069	1.477382428
10	0	0		0	3693.456069	1.477382428

11	0	0		0	3693.456069	1.477382428
12	0	0		18	3675.456069	1.470182428
13	0	0		18	3657.456069	1.462982428
14	0	0		18	3639.456069	1.455782428
15	0	0		18	3621.456069	1.448582428
16	0	0		18	3603.456069	1.441382428
17	0	0		18	3585.456069	1.434182428
18	0	0		18	3567.456069	1.426982428
19	0	0		18	3549.456069	1.419782428
20	0	0		18	3531.456069	1.412582428
21	0	0		18	3513.456069	1.405382428
22	0	0		18	3495.456069	1.398182428
23	1	13.3310603		18	3490.78713	1.396314852
24	0	0		18	3472.78713	1.389114852
25	0	0		18	3454.78713	1.381914852
26	0	0		18	3436.78713	1.374714852
27	0	0		18	3418.78713	1.367514852
28	0	0		18	3400.78713	1.360314852
29	84	1119.80906		0	4520.596191	1.808238476
30	0	0		0	4520.596191	1.808238476
Desember						
1	0	0		0	4520.596191	1.808238476
2	0	0		0	4520.596191	1.808238476
3	0	0		18	4502.596191	1.801038476
4	10	133.310603		0	4635.906793	1.854362717
5	0	0		0	4635.906793	1.854362717
6	0	0		0	4635.906793	1.854362717
7	0	0		0	4635.906793	1.854362717
8	0	0		18	4617.906793	1.847162717
9	0	0		18	4599.906793	1.839962717
10	0	0		18	4581.906793	1.832762717
11	0	0		18	4563.906793	1.825562717
12	0	0		18	4545.906793	1.818362717
13	0	0		18	4527.906793	1.811162717
14	0	0		18	4509.906793	1.803962717
15	0	0		18	4491.906793	1.796762717
16	0	0		18	4473.906793	1.789562717
17	127	1693.04465		0	6166.951445	2.466780578
18	50	666.553013	1300	0	5533.504457	2.213401783
19	34	453.256049	1300	0	4686.760506	1.874704202
20	0	0		0	4686.760506	1.874704202
21	64	853.187856	1300	0	4239.948362	1.695979345
22	5	66.6553013		0	4306.603663	1.722641465
23	0	0		0	4306.603663	1.722641465
24	10	133.310603		0	4439.914266	1.775965706
25	25	333.276506		0	4773.190772	1.909276309
26	63	839.856796		0	5613.047568	2.245219027
27	0	0		0	5613.047568	2.245219027
28	0	0		0	5613.047568	2.245219027
29	0	0		0	5613.047568	2.245219027
30	0	0		18	5595.047568	2.238019027
31	0	0		18	5577.047568	2.230819027

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	0	0		0	5577.047568	2.230819027
2	60	799.863615	1300	0	5076.911183	2.030764473
3	0	0		0	5076.911183	2.030764473
4	0	0		0	5076.911183	2.030764473
5	20	266.621205		0	5343.532388	2.137412955
6	10	133.3106025	1300	0	4176.84299	1.670737196
7	0	0		0	4176.84299	1.670737196
8	0	0		0	4176.84299	1.670737196
9	0	0		0	4176.84299	1.670737196
10	10	133.3106025		0	4310.153593	1.724061437
11	0	0		0	4310.153593	1.724061437
12	0	0		0	4310.153593	1.724061437
13	0	0		0	4310.153593	1.724061437
14	0	0		18	4292.153593	1.716861437
15	0	0		18	4274.153593	1.709661437
16	86	1146.471182		0	5420.624774	2.16824991
17	0	0		0	5420.624774	2.16824991
18	20	266.621205		0	5687.245979	2.274898392
19	0	0		0	5687.245979	2.274898392
20	0	0		0	5687.245979	2.274898392
21	0	0		0	5687.245979	2.274898392
22	40	533.24241	1300	0	4920.488389	1.968195356
23	43	573.2355908		0	5493.72398	2.197489592
24	0	0		0	5493.72398	2.197489592
25	0	0		0	5493.72398	2.197489592
26	0	0		0	5493.72398	2.197489592
27	0	0		18	5475.72398	2.190289592
28	0	0		18	5457.72398	2.183089592
29	0	0		18	5439.72398	2.175889592
30	0	0		18	5421.72398	2.168689592
31	0	0		18	5403.72398	2.161489592
Februari						
1	0	0		18	5385.72398	2.154289592
2	0	0		18	5367.72398	2.147089592
3	28	373.269687		0	5740.993667	2.296397467
4	8	106.648482		0	5847.642149	2.33905686
5	6	79.9863615		0	5927.62851	2.371051404
6	0	0		0	5927.62851	2.371051404
7	0	0		0	5927.62851	2.371051404
8	0	0		0	5927.62851	2.371051404
9	20	266.621205		0	6194.249715	2.477699886
10	0	0		0	6194.249715	2.477699886
11	0	0		0	6194.249715	2.477699886
12	0	0		0	6194.249715	2.477699886
13	0	0		18	6176.249715	2.470499886
14	0	0		18	6158.249715	2.463299886
15	0	0		18	6140.249715	2.456099886
16	0	0		18	6122.249715	2.448899886
17	0	0		18	6104.249715	2.441699886
18	0	0		18	6086.249715	2.434499886
19	0	0		18	6068.249715	2.427299886
20	0	0		18	6050.249715	2.420099886
21	0	0		18	6032.249715	2.412899886
22	0	0		18	6014.249715	2.405699886
23	0	0		18	5996.249715	2.398499886
24	0	0		18	5978.249715	2.391299886
25	90	1199.795423	1300	0	5878.045138	2.351218055
26	0	0		0	5878.045138	2.351218055
27	0	0		0	5878.045138	2.351218055
28	50	666.5530125	1300	0	5244.59815	2.09783926
Maret						
1	0	0		0	5244.59815	2.09783926
2	20	266.621205		0	5511.219355	2.204487742
3	50	666.5530125	1300	0	4877.772368	1.951108947
4	20	266.621205		0	5144.393573	2.057757429
5	0	0		0	5144.393573	2.057757429
6	0	0		0	5144.393573	2.057757429
7	0	0		0	5144.393573	2.057757429
8	0	0		18	5126.393573	2.050557429
9	0	0		18	5108.393573	2.043357429

10	50	666.5530125		0	5774.946585	2.309978634
11	0	0		0	5774.946585	2.309978634
12	15	199.9659038		0	5974.912489	2.389964996
13	0	0		0	5974.912489	2.389964996
14	0	0		0	5974.912489	2.389964996
15	0	0		0	5974.912489	2.389964996
16	0	0		18	5956.912489	2.382764996
17	0	0		18	5938.912489	2.375564996
18	0	0		18	5920.912489	2.368364996
19	0	0		18	5902.912489	2.361164996
20	50	666.5530125	1300	0	5269.465502	2.107786201
21	30	399.9318075		0	5669.397309	2.267758924
22	0	0		0	5669.397309	2.267758924
23	0	0		0	5669.397309	2.267758924
24	0	0		0	5669.397309	2.267758924
25	0	0		18	5651.397309	2.260558924
26	0	0		18	5633.397309	2.253358924
27	0	0		18	5615.397309	2.246158924
28	0	0		18	5597.397309	2.238958924
29	0	0		18	5579.397309	2.231758924
30	0	0		18	5561.397309	2.224558924
31	0	0		18	5543.397309	2.217358924
April						
1	0	0		18	5525.397309	2.210158924
2	0	0		18	5507.397309	2.202958924
3	0	0		18	5489.397309	2.195758924
4	0	0		18	5471.397309	2.188558924
5	0	0		18	5453.397309	2.181358924
6	0	0		18	5435.397309	2.174158924
7	0	0		18	5417.397309	2.166958924
8	0	0		18	5399.397309	2.159758924
9	0	0		18	5381.397309	2.152558924
10	0	0		18	5363.397309	2.145358924
11	0	0		18	5345.397309	2.138158924
12	0	0		18	5327.397309	2.130958924
13	0	0		18	5309.397309	2.123758924
14	0	0		18	5291.397309	2.116558924
15	0	0		18	5273.397309	2.109358924
16	0	0		18	5255.397309	2.102158924
17	0	0		18	5237.397309	2.094958924
18	0	0		18	5219.397309	2.087758924
19	0	0		18	5201.397309	2.080558924
20	0	0		18	5183.397309	2.073358924
21	0	0		18	5165.397309	2.066158924
22	0	0		18	5147.397309	2.058958924
23	0	0		18	5129.397309	2.051758924
24	0	0		18	5111.397309	2.044558924
25	0	0		18	5093.397309	2.037358924
26	0	0		18	5075.397309	2.030158924
27	0	0		18	5057.397309	2.022958924
28	0	0		18	5039.397309	2.015758924
29	0	0		18	5021.397309	2.008558924
30	0	0		18	5003.397309	2.001358924

Mei						
1	0	0		18	4985.397309	1.994158924
2	15	199.9659038		0	5185.363213	2.074145285
3	0	0		0	5185.363213	2.074145285
4	0	0		0	5185.363213	2.074145285
5	0	0		0	5185.363213	2.074145285
6	0	0		18	5167.363213	2.066945285
7	0	0		18	5149.363213	2.059745285
8	0	0		18	5131.363213	2.052545285
9	0	0		18	5113.363213	2.045345285
10	0	0		18	5095.363213	2.038145285
11	0	0		18	5077.363213	2.030945285
12	0	0		18	5059.363213	2.023745285
13	0	0		18	5041.363213	2.016545285
14	0	0		18	5023.363213	2.009345285
15	0	0		18	5005.363213	2.002145285
16	0	0		18	4987.363213	1.994945285
17	0	0		18	4969.363213	1.987745285
18	0	0		18	4951.363213	1.980545285
19	0	0		18	4933.363213	1.973345285
20	0	0		18	4915.363213	1.966145285
21	0	0		18	4897.363213	1.958945285
22	0	0		18	4879.363213	1.951745285
23	0	0		18	4861.363213	1.944545285
24	0	0		18	4843.363213	1.937345285
25	0	0		18	4825.363213	1.930145285
26	0	0		18	4807.363213	1.922945285
27	0	0		18	4789.363213	1.915745285
28	0	0		18	4771.363213	1.908545285
29	0	0		18	4753.363213	1.901345285
30	0	0		18	4735.363213	1.894145285
31	0	0		18	4717.363213	1.886945285
Juni						
1	0	0		18	4699.363213	1.879745285
2	0	0		18	4681.363213	1.872545285
3	0	0		18	4663.363213	1.865345285
4	0	0		18	4645.363213	1.858145285
5	0	0		18	4627.363213	1.850945285
6	0	0		18	4609.363213	1.843745285
7	0	0		18	4591.363213	1.836545285
8	0	0		18	4573.363213	1.829345285
9	0	0		18	4555.363213	1.822145285
10	0	0		18	4537.363213	1.814945285
11	0	0		18	4519.363213	1.807745285
12	0	0		18	4501.363213	1.800545285
13	0	0		18	4483.363213	1.793345285
14	0	0		18	4465.363213	1.786145285
15	0	0		18	4447.363213	1.778945285
16	0	0		18	4429.363213	1.771745285
17	0	0		18	4411.363213	1.764545285
18	0	0		18	4393.363213	1.757345285
19	0	0		18	4375.363213	1.750145285
20	0	0		18	4357.363213	1.742945285
21	0	0		18	4339.363213	1.735745285
22	0	0		18	4321.363213	1.728545285
23	0	0		18	4303.363213	1.721345285
24	0	0		18	4285.363213	1.714145285
25	0	0		18	4267.363213	1.706945285
26	0	0		18	4249.363213	1.699745285
27	0	0		18	4231.363213	1.692545285
28	0	0		18	4213.363213	1.685345285
29	0	0		18	4195.363213	1.678145285
30	0	0		18	4177.363213	1.670945285
Juli						
1	0	0		18	4159.363213	1.663745285
2	0	0		18	4141.363213	1.656545285
3	0	0		18	4123.363213	1.649345285
4	0	0		18	4105.363213	1.642145285
5	0	0		18	4087.363213	1.634945285
6	0	0		18	4069.363213	1.627745285
7	0	0		18	4051.363213	1.620545285
8	0	0		18	4033.363213	1.613345285
9	0	0		18	4015.363213	1.606145285
10	0	0		18	3997.363213	1.598945285



11	0	0		18	3979.363213	1.591745285
12	0	0		18	3961.363213	1.584545285
13	0	0		18	3943.363213	1.577345285
14	0	0		18	3925.363213	1.570145285
15	0	0		18	3907.363213	1.562945285
16	0	0		18	3889.363213	1.555745285
17	0	0		18	3871.363213	1.548545285
18	0	0		18	3853.363213	1.541345285
19	0	0		18	3835.363213	1.534145285
20	0	0		18	3817.363213	1.526945285
21	0	0		18	3799.363213	1.519745285
22	0	0		18	3781.363213	1.512545285
23	0	0		18	3763.363213	1.505345285
24	0	0		18	3745.363213	1.498145285
25	0	0		18	3727.363213	1.490945285
26	0	0		18	3709.363213	1.483745285
27	0	0		18	3691.363213	1.476545285
28	0	0		18	3673.363213	1.469345285
29	0	0		18	3655.363213	1.462145285
30	0	0		18	3637.363213	1.454945285
31	0	0		18	3619.363213	1.447745285
Agustus						
1	0	0		18	3601.363213	1.440545285
2	0	0		18	3583.363213	1.433345285
3	0	0		18	3565.363213	1.426145285
4	0	0		18	3547.363213	1.418945285
5	0	0		18	3529.363213	1.411745285
6	0	0		18	3511.363213	1.404545285
7	0	0		18	3493.363213	1.397345285
8	0	0		18	3475.363213	1.390145285
9	0	0		18	3457.363213	1.382945285
10	0	0		18	3439.363213	1.375745285
11	0	0		18	3421.363213	1.368545285
12	0	0		18	3403.363213	1.361345285
13	0	0		18	3385.363213	1.354145285
14	0	0		18	3367.363213	1.346945285
15	0	0		18	3349.363213	1.339745285
16	0	0		18	3331.363213	1.332545285
17	0	0		18	3313.363213	1.325345285
18	0	0		18	3295.363213	1.318145285
19	0	0		18	3277.363213	1.310945285
20	0	0		18	3259.363213	1.303745285
21	0	0		18	3241.363213	1.296545285
22	0	0		18	3223.363213	1.289345285
23	0	0		18	3205.363213	1.282145285
24	0	0		18	3187.363213	1.274945285
25	0	0		18	3169.363213	1.267745285
26	0	0		18	3151.363213	1.260545285
27	0	0		18	3133.363213	1.253345285
28	0	0		18	3115.363213	1.246145285
29	0	0		18	3097.363213	1.238945285
30	0	0		18	3079.363213	1.231745285
31	0	0		18	3061.363213	1.224545285

September						
1	0	0		18	3043.363213	1.217345285
2	0	0		18	3025.363213	1.210145285
3	0	0		18	3007.363213	1.202945285
4	0	0		18	2989.363213	1.195745285
5	0	0		18	2971.363213	1.188545285
6	0	0		18	2953.363213	1.181345285
7	0	0		18	2935.363213	1.174145285
8	0	0		18	2917.363213	1.166945285
9	0	0		18	2899.363213	1.159745285
10	0	0		18	2881.363213	1.152545285
11	0	0		18	2863.363213	1.145345285
12	0	0		18	2845.363213	1.138145285
13	0	0		18	2827.363213	1.130945285
14	0	0		18	2809.363213	1.123745285
15	0	0		18	2791.363213	1.116545285
16	0	0		18	2773.363213	1.109345285
17	0	0		18	2755.363213	1.102145285
18	0	0		18	2737.363213	1.094945285
19	0	0		18	2719.363213	1.087745285
20	0	0		18	2701.363213	1.080545285
21	0	0		18	2683.363213	1.073345285
22	0	0		18	2665.363213	1.066145285
23	0	0		18	2647.363213	1.058945285
24	0	0		18	2629.363213	1.051745285
25	0	0		18	2611.363213	1.044545285
26	0	0		18	2593.363213	1.037345285
27	0	0		18	2575.363213	1.030145285
28	0	0		18	2557.363213	1.022945285
29	0	0		18	2539.363213	1.015745285
30	0	0		18	2521.363213	1.008545285
Oktober						
1	0	0		18	2503.363213	1.001345285
2	0	0		18	2485.363213	0.994145285
3	0	0		18	2467.363213	0.986945285
4	0	0		18	2449.363213	0.979745285
5	0	0		18	2431.363213	0.972545285
6	0	0		18	2413.363213	0.965345285
7	0	0		18	2395.363213	0.958145285
8	0	0		18	2377.363213	0.950945285
9	0	0		18	2359.363213	0.943745285
10	0	0		18	2341.363213	0.936545285
11	0	0		18	2323.363213	0.929345285
12	0	0		18	2305.363213	0.922145285
13	0	0		18	2287.363213	0.914945285
14	0	0		18	2269.363213	0.907745285
15	0	0		18	2251.363213	0.900545285
16	0	0		18	2233.363213	0.893345285
17	0	0		18	2215.363213	0.886145285
18	0	0		18	2197.363213	0.878945285
19	0	0		18	2179.363213	0.871745285
20	0	0		18	2161.363213	0.864545285
21	0	0		18	2143.363213	0.857345285
22	0	0		18	2125.363213	0.850145285
23	0	0		18	2107.363213	0.842945285
24	0	0		18	2089.363213	0.835745285
25	0	0		18	2071.363213	0.828545285
26	0	0		18	2053.363213	0.821345285
27	0	0		18	2035.363213	0.814145285
28	0	0		18	2017.363213	0.806945285
29	0	0		18	1999.363213	0.799745285
30	33	439.9249883		0	2439.288201	0.97571528
31	0	0		0	2439.288201	0.97571528
November						
1	0	0		0	2439.288201	0.97571528
2	43	573.2355908		0	3012.523792	1.205009517
3	0	0		0	3012.523792	1.205009517
4	0	0		0	3012.523792	1.205009517
5	0	0		0	3012.523792	1.205009517
6	0	0		18	2994.523792	1.197809517
7	4	53.324241		0	3047.848033	1.219139213
8	0	0		0	3047.848033	1.219139213
9	0	0		0	3047.848033	1.219139213
10	0	0		0	3047.848033	1.219139213

11	24	319.945446		0	3367.793479	1.347117392
12	0	0		0	3367.793479	1.347117392
13	0	0		0	3367.793479	1.347117392
14	0	0		0	3367.793479	1.347117392
15	0	0		18	3349.793479	1.339917392
16	0	0		18	3331.793479	1.332717392
17	0	0		18	3313.793479	1.325517392
18	0	0		18	3295.793479	1.318317392
19	0	0		18	3277.793479	1.311117392
20	75	999.8295188		0	4277.622998	1.711049199
21	0	0		0	4277.622998	1.711049199
22	0	0		0	4277.622998	1.711049199
23	0	0		0	4277.622998	1.711049199
24	0	0		18	4259.622998	1.703849199
25	22	293.2833255		0	4552.906323	1.821162529
26	35	466.5871088		0	5019.493432	2.007797373
27	0	0		0	5019.493432	2.007797373
28	0	0		0	5019.493432	2.007797373
29	0	0		0	5019.493432	2.007797373
30	0	0		18	5001.493432	2.000597373
Desember						
1	0	0		18	4983.493432	1.993397373
2	0	0		18	4965.493432	1.986197373
3	0	0		18	4947.493432	1.978997373
4	0	0		18	4929.493432	1.971797373
5	0	0		18	4911.493432	1.964597373
6	0	0		18	4893.493432	1.957397373
7	13	173.3037833		0	5066.797215	2.026718886
8	14	186.6348435		0	5253.432059	2.101372823
9	0	0		0	5253.432059	2.101372823
10	30	399.9318075		0	5653.363866	2.261345546
11	45	599.8977113		0	6253.261577	2.501304631
12	0	0		0	6253.261577	2.501304631
13	49	653.2219523	1300	0	5606.48353	2.242593412
14	35	466.5871088	1300	0	4773.070638	1.909228255
15	53	706.5461933		0	5479.616832	2.191846733
16	27	359.9386268	1300	0	4539.555458	1.815822183
17	60	799.863615		0	5339.419073	2.135767629
18	0	0		0	5339.419073	2.135767629
19	0	0		0	5339.419073	2.135767629
20	0	0		0	5339.419073	2.135767629
21	0	0		18	5321.419073	2.128567629
22	0	0		18	5303.419073	2.121367629
23	0	0		18	5285.419073	2.114167629
24	0	0		18	5267.419073	2.106967629
25	0	0		18	5249.419073	2.099767629
26	0	0		18	5231.419073	2.092567629
27	20	266.621205		0	5498.040278	2.199216111
28	60	799.863615	1300	0	4997.903893	1.999161557
29	0	0		0	4997.903893	1.999161557
30	0	0		0	4997.903893	1.999161557
31	24	319.945446		0	5317.849339	2.127139736

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	119.9795423		0	5437.828882	2.175131553
2	0	0		0	5437.828882	2.175131553
3	6	79.9863615		0	5517.815243	2.207126097
4	0	0		0	5517.815243	2.207126097
5	10	133.3106025		0	5651.125846	2.260450338
6	0	0		0	5651.125846	2.260450338
7	0	0		0	5651.125846	2.260450338
8	0	0		0	5651.125846	2.260450338
9	120	1599.72723	1300	0	5950.853076	2.38034123
10	9	119.9795423		0	6070.832618	2.428333047
11	0	0		0	6070.832618	2.428333047
12	12	159.972723		0	6230.805341	2.492322136
13	60	799.863615	1300	0	5730.668956	2.292267582
14	0	0		18	5712.668956	2.285067582
15	0	0		18	5694.668956	2.277867582
16	0	0		18	5676.668956	2.270667582
17	21	279.9522653		0	5956.621221	2.382648488
18	0	0		0	5956.621221	2.382648488
19	0	0		0	5956.621221	2.382648488
20	0	0		0	5956.621221	2.382648488
21	10	133.3106025		0	6089.931824	2.435972729
22	0	0		0	6089.931824	2.435972729
23	0	0		0	6089.931824	2.435972729
24	0	0		0	6089.931824	2.435972729
25	0	0		18	6071.931824	2.428772729
26	0	0		18	6053.931824	2.421572729
27	0	0		18	6035.931824	2.414372729
28	0	0		18	6017.931824	2.407172729
29	0	0		18	5999.931824	2.399972729
30	0	0		18	5981.931824	2.392772729
31	81	1079.81588	1300	0	5761.747704	2.304699082
Februari						
1	0	0		0	5761.747704	2.304699082
2	24	319.945446		0	6081.69315	2.43267726
3	26	346.6075665	1300	0	5128.300716	2.051320287
4	0	0		0	5128.300716	2.051320287
5	26	346.6075665		0	5474.908283	2.189963313
6	0	0		0	5474.908283	2.189963313
7	0	0		0	5474.908283	2.189963313
8	0	0		0	5474.908283	2.189963313
9	15	199.9659038		0	5674.874187	2.269949675
10	0	0		0	5674.874187	2.269949675
11	0	0		0	5674.874187	2.269949675
12	0	0		0	5674.874187	2.269949675
13	0	0		18	5656.874187	2.262749675
14	0	0		18	5638.874187	2.255549675
15	35	466.5871088		0	6105.461295	2.442184518
16	50	666.5530125	1300	0	5472.014308	2.188805723
17	0	0		0	5472.014308	2.188805723
18	0	0		0	5472.014308	2.188805723
19	0	0		0	5472.014308	2.188805723
20	18	239.9590845		0	5711.973392	2.284789357
21	15	199.9659038		0	5911.939296	2.364775718
22	30	399.9318075	1300	0	5011.871104	2.004748441
23	15	199.9659038		0	5211.837007	2.084734803
24	12	159.972723	1300	0	4071.80973	1.628723892
25	20	266.621205		0	4338.430935	1.735372374
26	21	279.9522653		0	4618.383201	1.84735328
27	50	666.5530125		0	5284.936213	2.113974485
28	16	213.296964		0	5498.233177	2.199293271
Maret						
1	16	213.296964		0	5711.530141	2.284612056
2	0	0		0	5711.530141	2.284612056
3	19	253.2901448	1300	0	4664.820286	1.865928114
4	5	66.65530125		0	4731.475587	1.892590235
5	20	266.621205		0	4998.096792	1.999238717
6	22	293.2833255		0	5291.380118	2.116552047
7	0	0		0	5291.380118	2.116552047
8	0	0		18	5273.380118	2.109352047
9	0	0		18	5255.380118	2.102152047

10	48	639.890892		0	5895.27101	2.358108404
11	0	0		0	5895.27101	2.358108404
12	84	1119.809061	1300	0	5715.080071	2.286032028
13	0	0		0	5715.080071	2.286032028
14	0	0		0	5715.080071	2.286032028
15	0	0		0	5715.080071	2.286032028
16	0	0		18	5697.080071	2.278832028
17	73	973.1673983	1300	0	5370.247469	2.148098988
18	0	0		0	5370.247469	2.148098988
19	0	0		0	5370.247469	2.148098988
20	8	106.648482	1300	0	4176.895951	1.67075838
21	0	0		18	4158.895951	1.66355838
22	0	0		18	4140.895951	1.65635838
23	0	0		18	4122.895951	1.64915838
24	0	0		18	4104.895951	1.64195838
25	0	0		18	4086.895951	1.63475838
26	0	0		18	4068.895951	1.62755838
27	0	0		18	4050.895951	1.62035838
28	0	0		18	4032.895951	1.61315838
29	0	0		18	4014.895951	1.60595838
30	20	266.621205		0	4281.517156	1.712606862
31	5	66.65530125		0	4348.172457	1.739268983
April						
1	10	133.3106025		0	4481.48306	1.792593224
2	0	0		0	4481.48306	1.792593224
3	0	0		0	4481.48306	1.792593224
4	0	0		0	4481.48306	1.792593224
5	0	0		18	4463.48306	1.785393224
6	5	66.65530125		0	4530.138361	1.812055344
7	0	0		0	4530.138361	1.812055344
8	0	0		0	4530.138361	1.812055344
9	0	0		0	4530.138361	1.812055344
10	0	0		18	4512.138361	1.804855344
11	0	0		18	4494.138361	1.797655344
12	0	0		18	4476.138361	1.790455344
13	0	0		18	4458.138361	1.783255344
14	0	0		18	4440.138361	1.776055344
15	0	0		18	4422.138361	1.768855344
16	0	0		18	4404.138361	1.761655344
17	0	0		18	4386.138361	1.754455344
18	0	0		18	4368.138361	1.747255344
19	0	0		18	4350.138361	1.740055344
20	0	0		18	4332.138361	1.732855344
21	10	133.3106025		0	4465.448963	1.786179585
22	15	199.9659038		0	4665.414867	1.866165947
23	0	0		0	4665.414867	1.866165947
24	0	0		0	4665.414867	1.866165947
25	0	0		0	4665.414867	1.866165947
26	0	0		18	4647.414867	1.858965947
27	0	0		18	4629.414867	1.851765947
28	10	133.3106025		0	4762.72547	1.905090188
29	0	0		0	4762.72547	1.905090188
30	0	0		0	4762.72547	1.905090188

Mei						
1	0	0		0	4762.72547	1.905090188
2	0	0		18	4744.72547	1.897890188
3	0	0		18	4726.72547	1.890690188
4	0	0		18	4708.72547	1.883490188
5	0	0		18	4690.72547	1.876290188
6	0	0		18	4672.72547	1.869090188
7	0	0		18	4654.72547	1.861890188
8	0	0		18	4636.72547	1.854690188
9	0	0		18	4618.72547	1.847490188
10	0	0		18	4600.72547	1.840290188
11	25	333.2765063		0	4934.001976	1.97360079
12	0	0		0	4934.001976	1.97360079
13	23	306.6143858		0	5240.616362	2.096246545
14	0	0		0	5240.616362	2.096246545
15	0	0		0	5240.616362	2.096246545
16	15	199.9659038		0	5440.582265	2.176232906
17	0	0		0	5440.582265	2.176232906
18	21	279.9522653		0	5720.534531	2.288213812
19	0	0		0	5720.534531	2.288213812
20	0	0		0	5720.534531	2.288213812
21	0	0		0	5720.534531	2.288213812
22	0	0		18	5702.534531	2.281013812
23	23	306.6143858	1300	0	4709.148916	1.883659567
24	0	0		0	4709.148916	1.883659567
25	0	0		0	4709.148916	1.883659567
26	0	0		0	4709.148916	1.883659567
27	0	0		18	4691.148916	1.876459567
28	0	0		18	4673.148916	1.869259567
29	0	0		18	4655.148916	1.862059567
30	0	0		18	4637.148916	1.854859567
31	0	0		18	4619.148916	1.847659567
Juni						
1	0	0		18	4601.148916	1.840459567
2	0	0		18	4583.148916	1.833259567
3	0	0		18	4565.148916	1.826059567
4	0	0		18	4547.148916	1.818859567
5	0	0		18	4529.148916	1.811659567
6	0	0		18	4511.148916	1.804459567
7	0	0		18	4493.148916	1.797259567
8	0	0		18	4475.148916	1.790059567
9	0	0		18	4457.148916	1.782859567
10	50	666.5530125		0	5123.701929	2.049480772
11	0	0		0	5123.701929	2.049480772
12	0	0		0	5123.701929	2.049480772
13	0	0		0	5123.701929	2.049480772
14	0	0		18	5105.701929	2.042280772
15	0	0		18	5087.701929	2.035080772
16	0	0		18	5069.701929	2.027880772
17	0	0		18	5051.701929	2.020680772
18	0	0		18	5033.701929	2.013480772
19	0	0		18	5015.701929	2.006280772
20	0	0		18	4997.701929	1.999080772
21	0	0		18	4979.701929	1.991880772
22	0	0		18	4961.701929	1.984680772
23	0	0		18	4943.701929	1.977480772
24	0	0		18	4925.701929	1.970280772
25	0	0		18	4907.701929	1.963080772
26	0	0		18	4889.701929	1.955880772
27	0	0		18	4871.701929	1.948680772
28	0	0		18	4853.701929	1.941480772
29	0	0		18	4835.701929	1.934280772
30	0	0		18	4817.701929	1.927080772
Juli						
1	0	0		18	4799.701929	1.919880772
2	0	0		18	4781.701929	1.912680772
3	0	0		18	4763.701929	1.905480772
4	0	0		18	4745.701929	1.898280772
5	0	0		18	4727.701929	1.891080772
6	0	0		18	4709.701929	1.883880772
7	0	0		18	4691.701929	1.876680772
8	0	0		18	4673.701929	1.869480772
9	0	0		18	4655.701929	1.862280772
10	0	0		18	4637.701929	1.855080772

11	0	0		18	4619.701929	1.847880772
12	0	0		18	4601.701929	1.840680772
13	0	0		18	4583.701929	1.833480772
14	0	0		18	4565.701929	1.826280772
15	0	0		18	4547.701929	1.819080772
16	0	0		18	4529.701929	1.811880772
17	0	0		18	4511.701929	1.804680772
18	0	0		18	4493.701929	1.797480772
19	0	0		18	4475.701929	1.790280772
20	0	0		18	4457.701929	1.783080772
21	0	0		18	4439.701929	1.775880772
22	0	0		18	4421.701929	1.768680772
23	0	0		18	4403.701929	1.761480772
24	0	0		18	4385.701929	1.754280772
25	0	0		18	4367.701929	1.747080772
26	0	0		18	4349.701929	1.739880772
27	0	0		18	4331.701929	1.732680772
28	0	0		18	4313.701929	1.725480772
29	0	0		18	4295.701929	1.718280772
30	0	0		18	4277.701929	1.711080772
31	0	0		18	4259.701929	1.703880772
Agustus						
1	0	0		18	4241.701929	1.696680772
2	0	0		18	4223.701929	1.689480772
3	0	0		18	4205.701929	1.682280772
4	0	0		18	4187.701929	1.675080772
5	0	0		18	4169.701929	1.667880772
6	0	0		18	4151.701929	1.660680772
7	0	0		18	4133.701929	1.653480772
8	0	0		18	4115.701929	1.646280772
9	0	0		18	4097.701929	1.639080772
10	0	0		18	4079.701929	1.631880772
11	0	0		18	4061.701929	1.624680772
12	0	0		18	4043.701929	1.617480772
13	0	0		18	4025.701929	1.610280772
14	0	0		18	4007.701929	1.603080772
15	0	0		18	3989.701929	1.595880772
16	0	0		18	3971.701929	1.588680772
17	0	0		18	3953.701929	1.581480772
18	0	0		18	3935.701929	1.574280772
19	0	0		18	3917.701929	1.567080772
20	0	0		18	3899.701929	1.559880772
21	0	0		18	3881.701929	1.552680772
22	0	0		18	3863.701929	1.545480772
23	0	0		18	3845.701929	1.538280772
24	0	0		18	3827.701929	1.531080772
25	0	0		18	3809.701929	1.523880772
26	0	0		18	3791.701929	1.516680772
27	0	0		18	3773.701929	1.509480772
28	0	0		18	3755.701929	1.502280772
29	0	0		18	3737.701929	1.495080772
30	0	0		18	3719.701929	1.487880772
31	0	0		18	3701.701929	1.480680772

September						
1	0	0		18	3683.701929	1.473480772
2	0	0		18	3665.701929	1.466280772
3	0	0		18	3647.701929	1.459080772
4	0	0		18	3629.701929	1.451880772
5	0	0		18	3611.701929	1.444680772
6	0	0		18	3593.701929	1.437480772
7	0	0		18	3575.701929	1.430280772
8	0	0		18	3557.701929	1.423080772
9	0	0		18	3539.701929	1.415880772
10	0	0		18	3521.701929	1.408680772
11	0	0		18	3503.701929	1.401480772
12	0	0		18	3485.701929	1.394280772
13	0	0		18	3467.701929	1.387080772
14	0	0		18	3449.701929	1.379880772
15	0	0		18	3431.701929	1.372680772
16	0	0		18	3413.701929	1.365480772
17	0	0		18	3395.701929	1.358280772
18	0	0		18	3377.701929	1.351080772
19	0	0		18	3359.701929	1.343880772
20	0	0		18	3341.701929	1.336680772
21	0	0		18	3323.701929	1.329480772
22	0	0		18	3305.701929	1.322280772
23	0	0		18	3287.701929	1.315080772
24	0	0		18	3269.701929	1.307880772
25	0	0		18	3251.701929	1.300680772
26	0	0		18	3233.701929	1.293480772
27	0	0		18	3215.701929	1.286280772
28	0	0		18	3197.701929	1.279080772
29	0	0		18	3179.701929	1.271880772
30	0	0		18	3161.701929	1.264680772
Oktober						
1	0	0		18	3143.701929	1.257480772
2	0	0		18	3125.701929	1.250280772
3	0	0		18	3107.701929	1.243080772
4	0	0		18	3089.701929	1.235880772
5	0	0		18	3071.701929	1.228680772
6	0	0		18	3053.701929	1.221480772
7	0	0		18	3035.701929	1.214280772
8	0	0		18	3017.701929	1.207080772
9	0	0		18	2999.701929	1.199880772
10	0	0		18	2981.701929	1.192680772
11	0	0		18	2963.701929	1.185480772
12	0	0		18	2945.701929	1.178280772
13	0	0		18	2927.701929	1.171080772
14	0	0		18	2909.701929	1.163880772
15	0	0		18	2891.701929	1.156680772
16	0	0		18	2873.701929	1.149480772
17	0	0		18	2855.701929	1.142280772
18	0	0		18	2837.701929	1.135080772
19	0	0		18	2819.701929	1.127880772
20	0	0		18	2801.701929	1.120680772
21	0	0		18	2783.701929	1.113480772
22	0	0		18	2765.701929	1.106280772
23	0	0		18	2747.701929	1.099080772
24	0	0		18	2729.701929	1.091880772
25	0	0		18	2711.701929	1.084680772
26	0	0		18	2693.701929	1.077480772
27	0	0		18	2675.701929	1.070280772
28	0	0		18	2657.701929	1.063080772
29	0	0		18	2639.701929	1.055880772
30	0	0		18	2621.701929	1.048680772
31	0	0		18	2603.701929	1.041480772
November						
1	0	0		18	2585.701929	1.034280772
2	0	0		18	2567.701929	1.027080772
3	0	0		18	2549.701929	1.019880772
4	0	0		18	2531.701929	1.012680772
5	0	0		18	2513.701929	1.005480772
6	0	0		18	2495.701929	0.998280772
7	0	0		18	2477.701929	0.991080772
8	0	0		18	2459.701929	0.983880772
9	0	0		18	2441.701929	0.976680772
10	0	0		18	2423.701929	0.969480772



11	0	0		18	2405.701929	0.962280772
12	0	0		18	2387.701929	0.955080772
13	0	0		18	2369.701929	0.947880772
14	0	0		18	2351.701929	0.940680772
15	0	0		18	2333.701929	0.933480772
16	0	0		18	2315.701929	0.926280772
17	0	0		18	2297.701929	0.919080772
18	0	0		18	2279.701929	0.911880772
19	0	0		18	2261.701929	0.904680772
20	0	0		18	2243.701929	0.897480772
21	0	0		18	2225.701929	0.890280772
22	0	0		18	2207.701929	0.883080772
23	0	0		18	2189.701929	0.875880772
24	0	0		18	2171.701929	0.868680772
25	0	0		18	2153.701929	0.861480772
26	0	0		18	2135.701929	0.854280772
27	0	0		18	2117.701929	0.847080772
28	0	0		18	2099.701929	0.839880772
29	0	0		18	2081.701929	0.832680772
30	0	0		18	2063.701929	0.825480772
Desember						
1	0	0		18	2045.701929	0.818280772
2	0	0		18	2027.701929	0.811080772
3	0	0		18	2009.701929	0.803880772
4	0	0		18	1991.701929	0.796680772
5	0	0		18	1973.701929	0.789480772
6	0	0		18	1955.701929	0.782280772
7	0	0		18	1937.701929	0.775080772
8	0	0		18	1919.701929	0.767880772
9	0	0		18	1901.701929	0.760680772
10	0	0		18	1883.701929	0.753480772
11	0	0		18	1865.701929	0.746280772
12	0	0		18	1847.701929	0.739080772
13	0	0		18	1829.701929	0.731880772
14	0	0		18	1811.701929	0.724680772
15	0	0		18	1793.701929	0.717480772
16	0	0		18	1775.701929	0.710280772
17	0	0		18	1757.701929	0.703080772
18	0	0		18	1739.701929	0.695880772
19	0	0		18	1721.701929	0.688680772
20	0	0		18	1703.701929	0.681480772
21	0	0		18	1685.701929	0.674280772
22	0	0		18	1667.701929	0.667080772
23	0	0		18	1649.701929	0.659880772
24	0	0		18	1631.701929	0.652680772
25	0	0		18	1613.701929	0.645480772
26	0	0		18	1595.701929	0.638280772
27	0	0		18	1577.701929	0.631080772
28	0	0		18	1559.701929	0.623880772
29	0	0		18	1541.701929	0.616680772
30	0	0		18	1523.701929	0.609480772
31	0	0		18	1505.701929	0.602280772

**PERPUSTAKAAN ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	119.9795423		0	1625.681471	0.650272588
2	0	0		0	1625.681471	0.650272588
3	6	79.9863615		0	1705.667833	0.682267133
4	0	0		0	1705.667833	0.682267133
5	10	133.3106025		0	1838.978435	0.735591374
6	0	0		0	1838.978435	0.735591374
7	0	0		0	1838.978435	0.735591374
8	0	0		0	1838.978435	0.735591374
9	120	1599.72723		0	3438.705665	1.375482266
10	9	119.9795423		0	3558.685207	1.423474083
11	0	0		0	3558.685207	1.423474083
12	12	159.972723		0	3718.65793	1.487463172
13	60	799.863615		0	4518.521545	1.807408618
14	0	0		0	4518.521545	1.807408618
15	0	0		0	4518.521545	1.807408618
16	0	0		0	4518.521545	1.807408618
17	21	279.9522653		18	4780.473811	1.912189524
18	0	0		18	4762.473811	1.904989524
19	0	0		0	4762.473811	1.904989524
20	0	0		0	4762.473811	1.904989524
21	10	133.3106025		0	4895.784413	1.958313765
22	0	0		0	4895.784413	1.958313765
23	0	0		0	4895.784413	1.958313765
24	0	0		0	4895.784413	1.958313765
25	0	0		0	4895.784413	1.958313765
26	0	0		0	4895.784413	1.958313765
27	0	0		0	4895.784413	1.958313765
28	0	0		0	4895.784413	1.958313765
29	0	0		0	4895.784413	1.958313765
30	0	0		0	4895.784413	1.958313765
31	81	1079.81588		0	5975.600293	2.390240117
Februari						
1	0	0		0	5975.600293	2.390240117
2	24	319.945446	1300	0	4995.545739	1.998218296
3	26	346.6075665		0	5342.153306	2.136861322
4	0	0		0	5342.153306	2.136861322
5	26	346.6075665		0	5688.760872	2.275504349
6	0	0		0	5688.760872	2.275504349
7	0	0		0	5688.760872	2.275504349
8	0	0		0	5688.760872	2.275504349
9	15	199.9659038		0	5888.726776	2.35549071
10	0	0		0	5888.726776	2.35549071
11	0	0		0	5888.726776	2.35549071
12	0	0		0	5888.726776	2.35549071
13	0	0		0	5888.726776	2.35549071
14	0	0		0	5888.726776	2.35549071
15	35	466.5871088	1300	0	5055.313885	2.022125554
16	50	666.5530125		0	5721.866897	2.288746759
17	0	0		0	5721.866897	2.288746759
18	0	0		0	5721.866897	2.288746759
19	0	0		0	5721.866897	2.288746759
20	18	239.9590845		0	5961.825982	2.384730393
21	15	199.9659038		0	6161.791886	2.464716754
22	30	399.9318075	1300	0	5261.723693	2.104689477
23	15	199.9659038	1300	0	4161.689597	1.664675839
24	12	159.972723		0	4321.66232	1.728664928
25	20	266.621205		0	4588.283525	1.83531341
26	21	279.9522653		0	4868.23579	1.947294316
27	50	666.5530125	1300	0	4234.788803	1.693915521
28	16	213.296964		0	4448.085767	1.779234307
Maret						
1	16	213.296964		0	4661.382731	1.864553092
2	0	0		0	4661.382731	1.864553092
3	19	253.2901448	1300	0	3614.672875	1.44586915
4	5	66.65530125		0	3681.328177	1.472531271
5	20	266.621205		0	3947.949382	1.579179753
6	22	293.2833255		0	4241.232707	1.696493083
7	0	0		0	4241.232707	1.696493083
8	0	0		0	4241.232707	1.696493083
9	0	0		0	4241.232707	1.696493083

10	48	639.890892		0	4881.123599	1.95244944
11	0	0		0	4881.123599	1.95244944
12	84	1119.809061	1300	0	4700.93266	1.880373064
13	0	0		0	4700.93266	1.880373064
14	0	0		18	4682.93266	1.873173064
15	0	0		18	4664.93266	1.865973064
16	0	0		18	4646.93266	1.858773064
17	73	973.1673983	1300	18	4302.100058	1.720840023
18	0	0		0	4302.100058	1.720840023
19	0	0		0	4302.100058	1.720840023
20	8	106.648482		0	4408.74854	1.763499416
21	0	0		0	4408.74854	1.763499416
22	0	0		0	4408.74854	1.763499416
23	0	0		0	4408.74854	1.763499416
24	0	0		0	4408.74854	1.763499416
25	0	0		0	4408.74854	1.763499416
26	0	0		0	4408.74854	1.763499416
27	0	0		0	4408.74854	1.763499416
28	0	0		0	4408.74854	1.763499416
29	0	0		0	4408.74854	1.763499416
30	20	266.621205		0	4675.369745	1.870147898
31	5	66.65530125		0	4742.025047	1.896810019
April						
1	10	133.3106025		0	4875.335649	1.95013426
2	0	0		0	4875.335649	1.95013426
3	0	0		0	4875.335649	1.95013426
4	0	0		0	4875.335649	1.95013426
5	0	0		0	4875.335649	1.95013426
6	5	66.65530125		0	4941.99095	1.97679638
7	0	0		0	4941.99095	1.97679638
8	0	0		0	4941.99095	1.97679638
9	0	0		0	4941.99095	1.97679638
10	0	0		0	4941.99095	1.97679638
11	0	0		0	4941.99095	1.97679638
12	0	0		0	4941.99095	1.97679638
13	0	0		0	4941.99095	1.97679638
14	0	0		0	4941.99095	1.97679638
15	0	0		0	4941.99095	1.97679638
16	0	0		0	4941.99095	1.97679638
17	0	0		0	4941.99095	1.97679638
18	0	0		0	4941.99095	1.97679638
19	0	0		0	4941.99095	1.97679638
20	0	0		0	4941.99095	1.97679638
21	10	133.3106025	1300	0	3775.301553	1.510120621
22	15	199.9659038		0	3975.267457	1.590106983
23	0	0		0	3975.267457	1.590106983
24	0	0		0	3975.267457	1.590106983
25	0	0		0	3975.267457	1.590106983
26	0	0		0	3975.267457	1.590106983
27	0	0		0	3975.267457	1.590106983
28	10	133.3106025		0	4108.578059	1.643431224
29	0	0		0	4108.578059	1.643431224
30	0	0		0	4108.578059	1.643431224

Mei						
1	0	0		0	4108.578059	1.643431224
2	0	0		0	4108.578059	1.643431224
3	0	0		0	4108.578059	1.643431224
4	0	0		0	4108.578059	1.643431224
5	0	0		0	4108.578059	1.643431224
6	0	0		0	4108.578059	1.643431224
7	0	0		0	4108.578059	1.643431224
8	0	0		0	4108.578059	1.643431224
9	0	0		0	4108.578059	1.643431224
10	0	0		0	4108.578059	1.643431224
11	25	333.2765063	1300	0	3141.854565	1.256741826
12	0	0		0	3141.854565	1.256741826
13	23	306.6143858	1300	0	2148.468951	0.85938758
14	0	0		0	2148.468951	0.85938758
15	0	0		0	2148.468951	0.85938758
16	15	199.9659038		0	2348.434855	0.939373942
17	0	0		0	2348.434855	0.939373942
18	21	279.9522653		0	2628.38712	1.051354848
19	0	0		0	2628.38712	1.051354848
20	0	0		0	2628.38712	1.051354848
21	0	0		0	2628.38712	1.051354848
22	0	0		0	2628.38712	1.051354848
23	23	306.6143858		0	2935.001506	1.174000602
24	0	0		0	2935.001506	1.174000602
25	0	0		0	2935.001506	1.174000602
26	0	0		0	2935.001506	1.174000602
27	0	0		0	2935.001506	1.174000602
28	0	0		0	2935.001506	1.174000602
29	0	0		18	2917.001506	1.166800602
30	0	0		18	2899.001506	1.159600602
31	0	0		18	2881.001506	1.152400602
Juni						
1	0	0		18	2863.001506	1.145200602
2	0	0		18	2845.001506	1.138000602
3	0	0		18	2827.001506	1.130800602
4	0	0		0	2827.001506	1.130800602
5	0	0		0	2827.001506	1.130800602
6	0	0		0	2827.001506	1.130800602
7	0	0		0	2827.001506	1.130800602
8	0	0		0	2827.001506	1.130800602
9	0	0		0	2827.001506	1.130800602
10	50	666.5530125		0	3493.554518	1.397421807
11	0	0		0	3493.554518	1.397421807
12	0	0		0	3493.554518	1.397421807
13	0	0		0	3493.554518	1.397421807
14	0	0		0	3493.554518	1.397421807
15	0	0		18	3475.554518	1.390221807
16	0	0		18	3457.554518	1.383021807
17	0	0		18	3439.554518	1.375821807
18	0	0		18	3421.554518	1.368621807
19	0	0		18	3403.554518	1.361421807
20	0	0		18	3385.554518	1.354221807
21	0	0		18	3367.554518	1.347021807
22	0	0		18	3349.554518	1.339821807
23	0	0		18	3331.554518	1.332621807
24	0	0		18	3313.554518	1.325421807
25	0	0		18	3295.554518	1.318221807
26	0	0		18	3277.554518	1.311021807
27	0	0		18	3259.554518	1.303821807
28	0	0		18	3241.554518	1.296621807
29	0	0		18	3223.554518	1.289421807
30	0	0		18	3205.554518	1.282221807
Juli						
1	0	0		18	3187.554518	1.275021807
2	0	0		18	3169.554518	1.267821807
3	0	0		0	3169.554518	1.267821807
4	0	0		0	3169.554518	1.267821807
5	0	0		0	3169.554518	1.267821807
6	0	0		0	3169.554518	1.267821807
7	0	0		0	3169.554518	1.267821807
8	0	0		0	3169.554518	1.267821807
9	0	0		18	3151.554518	1.260621807
10	0	0		0	3151.554518	1.260621807

11	0	0		0	3151.554518	1.260621807
12	0	0		0	3151.554518	1.260621807
13	0	0		0	3151.554518	1.260621807
14	0	0		0	3151.554518	1.260621807
15	0	0		0	3151.554518	1.260621807
16	0	0		18	3133.554518	1.253421807
17	0	0		18	3115.554518	1.246221807
18	0	0		18	3097.554518	1.239021807
19	0	0		18	3079.554518	1.231821807
20	0	0		18	3061.554518	1.224621807
21	0	0		18	3043.554518	1.217421807
22	0	0		18	3025.554518	1.210221807
23	0	0		18	3007.554518	1.203021807
24	0	0		18	2989.554518	1.195821807
25	0	0		18	2971.554518	1.188621807
26	0	0		18	2953.554518	1.181421807
27	0	0		18	2935.554518	1.174221807
28	0	0		18	2917.554518	1.167021807
29	0	0		18	2899.554518	1.159821807
30	0	0		18	2881.554518	1.152621807
31	0	0		18	2863.554518	1.145421807
Agustus						
1	0	0		18	2845.554518	1.138221807
2	0	0		18	2827.554518	1.131021807
3	0	0		18	2809.554518	1.123821807
4	0	0		18	2791.554518	1.116621807
5	0	0		18	2773.554518	1.109421807
6	0	0		18	2755.554518	1.102221807
7	0	0		18	2737.554518	1.095021807
8	0	0		18	2719.554518	1.087821807
9	0	0		18	2701.554518	1.080621807
10	0	0		18	2683.554518	1.073421807
11	0	0		18	2665.554518	1.066221807
12	0	0		18	2647.554518	1.059021807
13	0	0		18	2629.554518	1.051821807
14	0	0		18	2611.554518	1.044621807
15	0	0		18	2593.554518	1.037421807
16	0	0		18	2575.554518	1.030221807
17	0	0		18	2557.554518	1.023021807
18	0	0		18	2539.554518	1.015821807
19	0	0		18	2521.554518	1.008621807
20	0	0		18	2503.554518	1.001421807
21	0	0		18	2485.554518	0.994221807
22	0	0		18	2467.554518	0.987021807
23	0	0		18	2449.554518	0.979821807
24	0	0		0	2449.554518	0.979821807
25	0	0		0	2449.554518	0.979821807
26	0	0		0	2449.554518	0.979821807
27	0	0		0	2449.554518	0.979821807
28	0	0		18	2431.554518	0.972621807
29	0	0		18	2413.554518	0.965421807
30	0	0		18	2395.554518	0.958221807
31	0	0		18	2377.554518	0.951021807

September						
1	0	0		18	2359.554518	0.943821807
2	0	0		18	2341.554518	0.936621807
3	0	0		18	2323.554518	0.929421807
4	0	0		18	2305.554518	0.922221807
5	0	0		18	2287.554518	0.915021807
6	0	0		0	2287.554518	0.915021807
7	0	0		0	2287.554518	0.915021807
8	0	0		0	2287.554518	0.915021807
9	0	0		0	2287.554518	0.915021807
10	0	0		0	2287.554518	0.915021807
11	0	0		18	2269.554518	0.907821807
12	0	0		0	2269.554518	0.907821807
13	0	0		0	2269.554518	0.907821807
14	0	0		0	2269.554518	0.907821807
15	0	0		0	2269.554518	0.907821807
16	0	0		18	2251.554518	0.900621807
17	0	0		0	2251.554518	0.900621807
18	0	0		18	2233.554518	0.893421807
19	0	0		18	2215.554518	0.886221807
20	0	0		0	2215.554518	0.886221807
21	0	0		0	2215.554518	0.886221807
22	0	0		0	2215.554518	0.886221807
23	0	0		0	2215.554518	0.886221807
24	0	0		0	2215.554518	0.886221807
25	0	0		0	2215.554518	0.886221807
26	0	0		0	2215.554518	0.886221807
27	0	0		0	2215.554518	0.886221807
28	0	0		0	2215.554518	0.886221807
29	0	0		18	2197.554518	0.879021807
30	0	0		18	2179.554518	0.871821807
Oktober						
1	0	0		18	2161.554518	0.864621807
2	0	0		18	2143.554518	0.857421807
3	0	0		18	2125.554518	0.850221807
4	0	0		18	2107.554518	0.843021807
5	0	0		18	2089.554518	0.835821807
6	0	0		18	2071.554518	0.828621807
7	0	0		18	2053.554518	0.821421807
8	0	0		0	2053.554518	0.821421807
9	0	0		0	2053.554518	0.821421807
10	0	0		0	2053.554518	0.821421807
11	0	0		0	2053.554518	0.821421807
12	0	0		0	2053.554518	0.821421807
13	0	0		18	2035.554518	0.814221807
14	0	0		18	2017.554518	0.807021807
15	0	0		0	2017.554518	0.807021807
16	0	0		0	2017.554518	0.807021807
17	0	0		0	2017.554518	0.807021807
18	0	0		0	2017.554518	0.807021807
19	0	0		0	2017.554518	0.807021807
20	0	0		0	2017.554518	0.807021807
21	0	0		18	1999.554518	0.799821807
22	0	0		18	1981.554518	0.792621807
23	0	0		18	1963.554518	0.785421807
24	0	0		18	1945.554518	0.778221807
25	0	0		18	1927.554518	0.771021807
26	0	0		18	1909.554518	0.763821807
27	0	0		18	1891.554518	0.756621807
28	0	0		18	1873.554518	0.749421807
29	0	0		0	1873.554518	0.749421807
30	0	0		0	1873.554518	0.749421807
31	0	0		0	1873.554518	0.749421807
November						
1	0	0		0	1873.554518	0.749421807
2	0	0		0	1873.554518	0.749421807
3	0	0		0	1873.554518	0.749421807
4	0	0		0	1873.554518	0.749421807
5	0	0		0	1873.554518	0.749421807
6	0	0		0	1873.554518	0.749421807
7	0	0		0	1873.554518	0.749421807
8	0	0		0	1873.554518	0.749421807
9	0	0		0	1873.554518	0.749421807
10	0	0		0	1873.554518	0.749421807

11	0	0		0	1873.554518	0.749421807
12	0	0		0	1873.554518	0.749421807
13	0	0		0	1873.554518	0.749421807
14	0	0		0	1873.554518	0.749421807
15	0	0		18	1855.554518	0.742221807
16	0	0		18	1837.554518	0.735021807
17	0	0		18	1819.554518	0.727821807
18	0	0		18	1801.554518	0.720621807
19	0	0		18	1783.554518	0.713421807
20	0	0		0	1783.554518	0.713421807
21	0	0		0	1783.554518	0.713421807
22	0	0		0	1783.554518	0.713421807
23	0	0		0	1783.554518	0.713421807
24	0	0		0	1783.554518	0.713421807
25	0	0		0	1783.554518	0.713421807
26	0	0		0	1783.554518	0.713421807
27	0	0		0	1783.554518	0.713421807
28	0	0		0	1783.554518	0.713421807
29	0	0		18	1765.554518	0.706221807
30	0	0		0	1765.554518	0.706221807
Desember						
1	0	0		0	1765.554518	0.706221807
2	0	0		0	1765.554518	0.706221807
3	0	0		0	1765.554518	0.706221807
4	0	0		0	1765.554518	0.706221807
5	0	0		0	1765.554518	0.706221807
6	0	0		0	1765.554518	0.706221807
7	0	0		0	1765.554518	0.706221807
8	0	0		0	1765.554518	0.706221807
9	0	0		0	1765.554518	0.706221807
10	0	0		0	1765.554518	0.706221807
11	0	0		0	1765.554518	0.706221807
12	0	0		0	1765.554518	0.706221807
13	0	0		0	1765.554518	0.706221807
14	0	0		0	1765.554518	0.706221807
15	0	0		0	1765.554518	0.706221807
16	0	0		0	1765.554518	0.706221807
17	0	0		0	1765.554518	0.706221807
18	0	0		0	1765.554518	0.706221807
19	0	0		0	1765.554518	0.706221807
20	0	0		0	1765.554518	0.706221807
21	0	0		0	1765.554518	0.706221807
22	0	0		0	1765.554518	0.706221807
23	0	0		0	1765.554518	0.706221807
24	0	0		0	1765.554518	0.706221807
25	0	0		0	1765.554518	0.706221807
26	0	0		0	1765.554518	0.706221807
27	0	0		0	1765.554518	0.706221807
28	0	0		0	1765.554518	0.706221807
29	0	0		0	1765.554518	0.706221807
30	0	0		0	1765.554518	0.706221807
31	0	0		18	1747.554518	0.699021807

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	5	66.655301		0	1814.20982	0.725683928
2	10	133.3106		0	1947.520422	0.779008169
3	0	0		0	1947.520422	0.779008169
4	0	0		0	1947.520422	0.779008169
5	0	0		0	1947.520422	0.779008169
6	20	266.62121		0	2214.141627	0.885656651
7	0	0		0	2214.141627	0.885656651
8	10	133.3106		0	2347.45223	0.938980892
9	0	0		0	2347.45223	0.938980892
10	25	333.27651		0	2680.728736	1.072291494
11	0	0		0	2680.728736	1.072291494
12	0	0		0	2680.728736	1.072291494
13	0	0		0	2680.728736	1.072291494
14	10	133.3106		0	2814.039338	1.125615735
15	0	0		0	2814.039338	1.125615735
16	0	0		0	2814.039338	1.125615735
17	0	0		0	2814.039338	1.125615735
18	0	0		18	2796.039338	1.118415735
19	0	0		18	2778.039338	1.111215735
20	5	66.655301		0	2844.69464	1.137877856
21	0	0		0	2844.69464	1.137877856
22	0	0		0	2844.69464	1.137877856
23	0	0		0	2844.69464	1.137877856
24	4	53.324241		0	2898.018881	1.159207552
25	15	199.9659		0	3097.984784	1.239193914
26	21	279.95227		0	3377.93705	1.35117482
27	0	0		0	3377.93705	1.35117482
28	0	0		0	3377.93705	1.35117482
29	6	79.986362		0	3457.923411	1.383169364
30	18	239.95908		0	3697.882496	1.479152998
31	26	346.60757		0	4044.490062	1.617796025
Februari						
1	20	266.62121		0	4311.111267	1.724444507
2	25	333.27651	1300	0	3344.387773	1.337755109
3	19	253.29014		0	3597.677918	1.439071167
4	0	0		0	3597.677918	1.439071167
5	0	0		0	3597.677918	1.439071167
6	0	0		0	3597.677918	1.439071167
7	0	0		0	3597.677918	1.439071167
8	20	266.62121		0	3864.299123	1.545719649
9	0	0		0	3864.299123	1.545719649
10	0	0		0	3864.299123	1.545719649
11	0	0		0	3864.299123	1.545719649
12	30	399.93181		0	4264.230931	1.705692372
13	7	93.317422		0	4357.548352	1.743019341
14	47	626.55983	1300	0	3684.108184	1.473643274
15	0	0		0	3684.108184	1.473643274
16	13	173.30378		0	3857.411967	1.542964787
17	0	0		0	3857.411967	1.542964787
18	9	119.97954		0	3977.39151	1.590956604
19	0	0		0	3977.39151	1.590956604
20	0	0		0	3977.39151	1.590956604
21	5	66.655301		0	4044.046811	1.617618724
22	0	0		0	4044.046811	1.617618724
23	10	133.3106		0	4177.357413	1.670942965
24	8	106.64848		0	4284.005895	1.713602358
25	0	0		0	4284.005895	1.713602358
26	15	199.9659		0	4483.971799	1.79358872
27	0	0		0	4483.971799	1.79358872
28	0	0		0	4483.971799	1.79358872
Maret						
1	20	266.62121		0	4750.593004	1.900237202
2	10	133.3106		0	4883.903607	1.953561443
3	0	0		0	4883.903607	1.953561443
4	3	39.993181		0	4923.896787	1.969558715
5	0	0		0	4923.896787	1.969558715
6	0	0		0	4923.896787	1.969558715
7	8	106.64848	1300	0	3730.545269	1.492218108
8	14	186.63484	1300	0	2617.180113	1.046872045
9	0	0		0	2617.180113	1.046872045



10	0	0		0	2617.180113	1.046872045
11	0	0		0	2617.180113	1.046872045
12	20	266.62121		0	2883.801318	1.153520527
13	5	66.655301		0	2950.456619	1.180182648
14	7	93.317422		0	3043.774041	1.217509616
15	5	66.655301		0	3110.429342	1.244171737
16	0	0		0	3110.429342	1.244171737
17	20	266.62121		0	3377.050547	1.350820219
18	0	0		0	3377.050547	1.350820219
19	0	0		0	3377.050547	1.350820219
20	8	106.64848		0	3483.699029	1.393479612
21	0	0		0	3483.699029	1.393479612
22	0	0		0	3483.699029	1.393479612
23	30	399.93181	1300	0	2583.630837	1.033452335
24	0	0		0	2583.630837	1.033452335
25	20	266.62121		0	2850.252042	1.140100817
26	25	333.27651	1300	0	1883.528548	0.753411419
27	24	319.94545		0	2203.473994	0.881389598
28	0	0		0	2203.473994	0.881389598
29	27	359.93863		0	2563.412621	1.025365048
30	0	0		0	2563.412621	1.025365048
31	0	0		0	2563.412621	1.025365048
April						
1	20	266.62121		0	2830.033826	1.13201353
2	40	533.24241		0	3363.276236	1.345310494
3	39	519.91135	1300	0	2583.187585	1.033275034
4	15	199.9659		0	2783.153489	1.113261396
5	7	93.317422		0	2876.470911	1.150588364
6	17	226.62802		0	3103.098935	1.241239574
7	9	119.97954		0	3223.078477	1.289231391
8	0	0		0	3223.078477	1.289231391
9	8	106.64848		0	3329.726959	1.331890784
10	10	133.3106		0	3463.037562	1.385215025
11	30	399.93181	1300	0	2562.969369	1.025187748
12	14	186.63484		0	2749.604213	1.099841685
13	0	0		0	2749.604213	1.099841685
14	30	399.93181		0	3149.53602	1.259814408
15	0	0		0	3149.53602	1.259814408
16	9	119.97954		0	3269.515563	1.307806225
17	8	106.64848		0	3376.164045	1.350465618
18	0	0		0	3376.164045	1.350465618
19	54	719.87725	1300	0	2796.041298	1.118416519
20	0	0		0	2796.041298	1.118416519
21	16	213.29696	1300	0	1709.338262	0.683735305
22	0	0		0	1709.338262	0.683735305
23	9	119.97954		0	1829.317804	0.731727122
24	0	0		0	1829.317804	0.731727122
25	0	0		0	1829.317804	0.731727122
26	28	373.26969		0	2202.587491	0.881034997
27	10	133.3106		0	2335.898094	0.934359238
28	0	0		0	2335.898094	0.934359238
29	20	266.62121		0	2602.519299	1.04100772
30	32	426.59393		0	3029.113227	1.211645291

Mei						
1	21	279.95227		0	3309.065492	1.323626197
2	7	93.317422		0	3402.382914	1.360953166
3	31	413.26287	1300	0	2515.645782	1.006258313
4	0	0		0	2515.645782	1.006258313
5	26	346.60757		0	2862.253348	1.144901339
6	8	106.64848		0	2968.90183	1.187560732
7	0	0		0	2968.90183	1.187560732
8	0	0		0	2968.90183	1.187560732
9	7	93.317422		0	3062.219252	1.224887701
10	0	0		0	3062.219252	1.224887701
11	6	79.986362		0	3142.205613	1.256882245
12	0	0		0	3142.205613	1.256882245
13	10	133.3106		0	3275.516216	1.310206486
14	7	93.317422		0	3368.833638	1.347533455
15	0	0		0	3368.833638	1.347533455
16	0	0		0	3368.833638	1.347533455
17	0	0		0	3368.833638	1.347533455
18	0	0		18	3350.833638	1.340333455
19	0	0		18	3332.833638	1.333133455
20	8	106.64848		0	3439.48212	1.375792848
21	0	0		0	3439.48212	1.375792848
22	0	0		0	3439.48212	1.375792848
23	0	0		0	3439.48212	1.375792848
24	0	0		18	3421.48212	1.368592848
25	0	0		18	3403.48212	1.361392848
26	0	0		18	3385.48212	1.354192848
27	0	0		18	3367.48212	1.346992848
28	0	0		18	3349.48212	1.339792848
29	20	266.62121		0	3616.103325	1.44644133
30	15	199.9659	1300	0	2516.069228	1.006427691
31	0	0		0	2516.069228	1.006427691
Juni						
1	0	0		0	2516.069228	1.006427691
2	0	0		0	2516.069228	1.006427691
3	0	0		18	2498.069228	0.999227691
4	0	0		18	2480.069228	0.992027691
5	0	0		18	2462.069228	0.984827691
6	0	0		18	2444.069228	0.977627691
7	0	0		18	2426.069228	0.970427691
8	0	0		18	2408.069228	0.963227691
9	0	0		18	2390.069228	0.956027691
10	0	0		18	2372.069228	0.948827691
11	0	0		18	2354.069228	0.941627691
12	0	0		18	2336.069228	0.934427691
13	0	0		18	2318.069228	0.927227691
14	0	0		18	2300.069228	0.920027691
15	0	0		18	2282.069228	0.912827691
16	0	0		18	2264.069228	0.905627691
17	0	0		18	2246.069228	0.898427691
18	0	0		18	2228.069228	0.891227691
19	0	0		18	2210.069228	0.884027691
20	0	0		18	2192.069228	0.876827691
21	0	0		18	2174.069228	0.869627691
22	0	0		18	2156.069228	0.862427691
23	0	0		18	2138.069228	0.855227691
24	0	0		18	2120.069228	0.848027691
25	0	0		18	2102.069228	0.840827691
26	0	0		18	2084.069228	0.833627691
27	0	0		18	2066.069228	0.826427691
28	0	0		18	2048.069228	0.819227691
29	0	0		18	2030.069228	0.812027691
30	0	0		18	2012.069228	0.804827691
Juli						
1	0	0		18	1994.069228	0.797627691
2	0	0		18	1976.069228	0.790427691
3	0	0		18	1958.069228	0.783227691
4	0	0		18	1940.069228	0.776027691
5	0	0		18	1922.069228	0.768827691
6	0	0		18	1904.069228	0.761627691
7	0	0		18	1886.069228	0.754427691
8	0	0		18	1868.069228	0.747227691
9	0	0		18	1850.069228	0.740027691
10	0	0		18	1832.069228	0.732827691

11	0	0		18	1814.069228	0.725627691
12	0	0		18	1796.069228	0.718427691
13	0	0		18	1778.069228	0.711227691
14	0	0		18	1760.069228	0.704027691
15	0	0		18	1742.069228	0.696827691
16	0	0		18	1724.069228	0.689627691
17	0	0		18	1706.069228	0.682427691
18	0	0		18	1688.069228	0.675227691
19	0	0		18	1670.069228	0.668027691
20	0	0		18	1652.069228	0.660827691
21	0	0		18	1634.069228	0.653627691
22	0	0		18	1616.069228	0.646427691
23	0	0		18	1598.069228	0.639227691
24	0	0		18	1580.069228	0.632027691
25	0	0		18	1562.069228	0.624827691
26	0	0		18	1544.069228	0.617627691
27	0	0		18	1526.069228	0.610427691
28	0	0		18	1508.069228	0.603227691
29	0	0		18	1490.069228	0.596027691
30	0	0		18	1472.069228	0.588827691
31	0	0		18	1454.069228	0.581627691
Agustus						
1	0	0		18	1436.069228	0.574427691
2	0	0		18	1418.069228	0.567227691
3	0	0		18	1400.069228	0.560027691
4	0	0		18	1382.069228	0.552827691
5	0	0		18	1364.069228	0.545627691
6	0	0		18	1346.069228	0.538427691
7	0	0		18	1328.069228	0.531227691
8	0	0		18	1310.069228	0.524027691
9	0	0		18	1292.069228	0.516827691
10	0	0		18	1274.069228	0.509627691
11	0	0		18	1256.069228	0.502427691
12	0	0		18	1238.069228	0.495227691
13	0	0		18	1220.069228	0.488027691
14	0	0		18	1202.069228	0.480827691
15	0	0		18	1184.069228	0.473627691
16	0	0		18	1166.069228	0.466427691
17	0	0		18	1148.069228	0.459227691
18	0	0		18	1130.069228	0.452027691
19	0	0		18	1112.069228	0.444827691
20	0	0		18	1094.069228	0.437627691
21	0	0		18	1076.069228	0.430427691
22	0	0		18	1058.069228	0.423227691
23	0	0		18	1040.069228	0.416027691
24	0	0		18	1022.069228	0.408827691
25	0	0		18	1004.069228	0.401627691
26	0	0		18	986.0692284	0.394427691
27	0	0		18	968.0692284	0.387227691
28	0	0		18	950.0692284	0.380027691
29	0	0		18	932.0692284	0.372827691
30	0	0		18	914.0692284	0.365627691
31	0	0		18	896.0692284	0.358427691

September						
1	0	0		18	878.0692284	0.351227691
2	0	0		18	860.0692284	0.344027691
3	0	0		18	842.0692284	0.336827691
4	0	0		18	824.0692284	0.329627691
5	0	0		18	806.0692284	0.322427691
6	0	0		18	788.0692284	0.315227691
7	0	0		18	770.0692284	0.308027691
8	0	0		18	752.0692284	0.300827691
9	0	0		18	734.0692284	0.293627691
10	0	0		18	716.0692284	0.286427691
11	0	0		18	698.0692284	0.279227691
12	0	0		18	680.0692284	0.272027691
13	0	0		18	662.0692284	0.264827691
14	0	0		18	644.0692284	0.257627691
15	0	0		18	626.0692284	0.250427691
16	0	0		18	608.0692284	0.243227691
17	0	0		18	590.0692284	0.236027691
18	0	0		18	572.0692284	0.228827691
19	0	0		18	554.0692284	0.221627691
20	0	0		18	536.0692284	0.214427691
21	0	0		18	518.0692284	0.207227691
22	0	0		18	500.0692284	0.200027691
23	0	0		18	482.0692284	0.192827691
24	0	0		18	464.0692284	0.185627691
25	0	0		18	446.0692284	0.178427691
26	0	0		18	428.0692284	0.171227691
27	0	0		18	410.0692284	0.164027691
28	0	0		18	392.0692284	0.156827691
29	0	0		18	374.0692284	0.149627691
30	0	0		18	356.0692284	0.142427691
Oktober						
1	0	0		18	338.0692284	0.135227691
2	0	0		18	320.0692284	0.128027691
3	0	0		18	302.0692284	0.120827691
4	0	0		18	284.0692284	0.113627691
5	0	0		18	266.0692284	0.106427691
6	0	0		18	248.0692284	0.099227691
7	0	0		18	230.0692284	0.092027691
8	0	0		18	212.0692284	0.084827691
9	0	0		18	194.0692284	0.077627691
10	23	306.61439		0	500.6836141	0.200273446
11	0	0		0	500.6836141	0.200273446
12	0	0		0	500.6836141	0.200273446
13	0	0		0	500.6836141	0.200273446
14	0	0		18	482.6836141	0.193073446
15	0	0		18	464.6836141	0.185873446
16	0	0		18	446.6836141	0.178673446
17	0	0		18	428.6836141	0.171473446
18	0	0		18	410.6836141	0.164273446
19	0	0		18	392.6836141	0.157073446
20	0	0		18	374.6836141	0.149873446
21	0	0		18	356.6836141	0.142673446
22	0	0		18	338.6836141	0.135473446
23	0	0		18	320.6836141	0.128273446
24	0	0		18	302.6836141	0.121073446
25	0	0		18	284.6836141	0.113873446
26	0	0		18	266.6836141	0.106673446
27	0	0		18	248.6836141	0.099473446
28	0	0		18	230.6836141	0.092273446
29	0	0		18	212.6836141	0.085073446
30	0	0		18	194.6836141	0.077873446
31	0	0		18	176.6836141	0.070673446
November						
1	0	0		18	158.6836141	0.063473446
2	0	0		18	140.6836141	0.056273446
3	19	253.29014		0	393.9737589	0.157589504
4	0	0		0	393.9737589	0.157589504
5	3	39.993181		0	433.9669396	0.173586776
6	0	0		0	433.9669396	0.173586776
7	30	399.93181		0	833.8987471	0.333559499
8	0	0		0	833.8987471	0.333559499
9	78	1039.8227		0	1873.721447	0.749488579
10	0	0		0	1873.721447	0.749488579

11	0	0		0	1873.721447	0.749488579
12	0	0		0	1873.721447	0.749488579
13	3	39.993181		0	1913.714627	0.765485851
14	0	0		0	1913.714627	0.765485851
15	0	0		0	1913.714627	0.765485851
16	0	0		0	1913.714627	0.765485851
17	0	0		18	1895.714627	0.758285851
18	27	359.93863		0	2255.653254	0.902261302
19	0	0		0	2255.653254	0.902261302
20	0	0		0	2255.653254	0.902261302
21	0	0		0	2255.653254	0.902261302
22	0	0		18	2237.653254	0.895061302
23	33	439.92499		0	2677.578242	1.071031297
24	0	0		0	2677.578242	1.071031297
25	0	0		0	2677.578242	1.071031297
26	0	0		0	2677.578242	1.071031297
27	0	0		18	2659.578242	1.063831297
28	21	279.95227		0	2939.530508	1.175812203
29	2	26.662121		0	2966.192628	1.186477051
30	60	799.86362	1300	0	2466.056243	0.986422497
Desember						
1	0	0		0	2466.056243	0.986422497
2	30	399.93181		0	2865.988051	1.14639522
3	50	666.55301		0	3532.541063	1.413016425
4	0	0		0	3532.541063	1.413016425
5	47	626.55983	1300	0	2859.100895	1.143640358
6	0	0		0	2859.100895	1.143640358
7	10	133.3106		0	2992.411497	1.196964599
8	5	66.655301		0	3059.066799	1.223626719
9	0	0		0	3059.066799	1.223626719
10	0	0		0	3059.066799	1.223626719
11	0	0		0	3059.066799	1.223626719
12	25	333.27651		0	3392.343305	1.356937322
13	0	0		0	3392.343305	1.356937322
14	0	0		0	3392.343305	1.356937322
15	0	0		0	3392.343305	1.356937322
16	54	719.87725	1300	0	2812.220558	1.124888223
17	0	0		0	2812.220558	1.124888223
18	43	573.23559	1300	0	2085.456149	0.83418246
19	1	13.33106		0	2098.787209	0.839514884
20	0	0		0	2098.787209	0.839514884
21	9	119.97954		0	2218.766752	0.887506701
22	0	0		0	2218.766752	0.887506701
23	0	0		0	2218.766752	0.887506701
24	7	93.317422		0	2312.084173	0.924833669
25	20	266.62121		0	2578.705378	1.031482151
26	21	279.95227		0	2858.657644	1.143463057
27	25	333.27651		0	3191.93415	1.27677366
28	0	0		0	3191.93415	1.27677366
29	0	0		0	3191.93415	1.27677366
30	0	0		0	3191.93415	1.27677366
31	57	759.87043	1300	18	2633.804584	1.053521834

**PERPUSTAKAAN ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	72	959.836338		0	3593.640922	1.437456369
2	49	653.2219523	1300	0	2946.862874	1.17874515
3	0	0		0	2946.862874	1.17874515
4	0	0		0	2946.862874	1.17874515
5	33	439.9249883		0	3386.787863	1.354715145
6	24	319.945446	1300	0	2406.733309	0.962693323
7	0	0		0	2406.733309	0.962693323
8	0	0		0	2406.733309	0.962693323
9	0	0		0	2406.733309	0.962693323
10	32	426.593928		0	2833.327237	1.133330895
11	0	0		0	2833.327237	1.133330895
12	6	79.9863615		0	2913.313598	1.165325439
13	0	0		0	2913.313598	1.165325439
14	0	0		0	2913.313598	1.165325439
15	52	693.215133	1300	0	2306.528731	0.922611492
16	61	813.1946753		0	3119.723406	1.247889363
17	20	266.621205		0	3386.344611	1.354537845
18	16	213.296964	1300	0	2299.641575	0.91985663
19	0	0		0	2299.641575	0.91985663
20	55	733.2083138		0	3032.849889	1.213139956
21	0	0		0	3032.849889	1.213139956
22	7	93.31742175		0	3126.167311	1.250466924
23	6	79.9863615		0	3206.153672	1.282461469
24	4	53.324241		0	3259.477913	1.303791165
25	9	119.9795423		0	3379.457456	1.351782982
26	0	0		0	3379.457456	1.351782982
27	0	0		0	3379.457456	1.351782982
28	0	0		0	3379.457456	1.351782982
29	0	0		18	3361.457456	1.344582982
30	85	1133.140121	1300	0	3194.597577	1.277839031
31	20	266.621205		0	3461.218782	1.384487513
<b>Februari</b>						
1	11	146.6416628		0	3607.860445	1.443144178
2	10	133.3106025	1300	0	2441.171047	0.976468419
3	24	319.945446		0	2761.116493	1.104446597
4	10	133.3106025		0	2894.427096	1.157770838
5	0	0		0	2894.427096	1.157770838
6	0	0		0	2894.427096	1.157770838
7	9	119.9795423	1300	0	1714.406638	0.685762655
8	67	893.1810368		0	2607.587675	1.04303507
9	5	66.65530125		0	2674.242976	1.06969719
10	13	173.3037833		0	2847.546759	1.139018704
11	27	359.9386268		0	3207.485386	1.282994154
12	21	279.9522653	1300	0	2187.437651	0.87497506
13	9	119.9795423		0	2307.417193	0.922966877
14	7	93.31742175		0	2400.734615	0.960293846
15	10	133.3106025		0	2534.045218	1.013618087
16	55	733.2083138		0	3267.253531	1.306901413
17	0	0		0	3267.253531	1.306901413
18	3	39.99318075		0	3307.246712	1.322898685
19	0	0		0	3307.246712	1.322898685
20	3	39.99318075		0	3347.239893	1.338895957
21	4	53.324241		0	3400.564134	1.360225654
22	0	0		0	3400.564134	1.360225654
23	0	0		0	3400.564134	1.360225654
24	0	0		0	3400.564134	1.360225654
25	38	506.5802895	1300	0	2607.144423	1.042857769
26	19	253.2901448		0	2860.434568	1.144173827
27	0	0		0	2860.434568	1.144173827
28	23	306.6143858		0	3167.048954	1.266819582
<b>Maret</b>						
1	15	199.9659038		0	3367.014858	1.346805943
2	0	0		0	3367.014858	1.346805943
3	0	0		0	3367.014858	1.346805943
4	0	0		0	3367.014858	1.346805943
5	0	0		18	3349.014858	1.339605943
6	25	333.2765063	1300	0	2382.291364	0.952916546
7	12	159.972723		0	2542.264087	1.016905635
8	0	0		0	2542.264087	1.016905635
9	0	0		0	2542.264087	1.016905635
10	0	0		0	2542.264087	1.016905635

11	0	0		18	2524.264087	1.009705635
12	0	0		0	2524.264087	1.009705635
13	19	253.2901448		0	2777.554232	1.111021693
14	11	146.6416628		0	2924.195894	1.169678358
15	7	93.31742175		0	3017.513316	1.207005326
16	5	66.65530125		0	3084.168617	1.233667447
17	14	186.6348435	1300	0	1970.803461	0.788321384
18	20	266.621205		0	2237.424666	0.894969866
19	0	0		0	2237.424666	0.894969866
20	21	279.9522653		0	2517.376931	1.006950772
21	0	0		0	2517.376931	1.006950772
22	0	0		0	2517.376931	1.006950772
23	0	0		0	2517.376931	1.006950772
24	7	93.31742175		0	2610.694353	1.044277741
25	0	0		0	2610.694353	1.044277741
26	5	66.65530125		0	2677.349654	1.070939862
27	35	466.5871088		0	3143.936763	1.257574705
28	0	0		0	3143.936763	1.257574705
29	0	0		0	3143.936763	1.257574705
30	0	0		0	3143.936763	1.257574705
31	0	0		18	3125.936763	1.250374705
April						
1	0	0		0	3125.936763	1.250374705
2	8	106.648482		0	3232.585245	1.293034098
3	0	0		0	3232.585245	1.293034098
4	0	0		0	3232.585245	1.293034098
5	19	253.2901448		0	3485.87539	1.394350156
6	0	0		0	3485.87539	1.394350156
7	0	0		0	3485.87539	1.394350156
8	30	399.9318075	1300	0	2585.807197	1.034322879
9	0	0		0	2585.807197	1.034322879
10	0	0		0	2585.807197	1.034322879
11	0	0		0	2585.807197	1.034322879
12	0	0		18	2567.807197	1.027122879
13	0	0		18	2549.807197	1.019922879
14	0	0		18	2531.807197	1.012722879
15	22	293.2833255		0	2825.090523	1.130036209
16	0	0		0	2825.090523	1.130036209
17	0	0		0	2825.090523	1.130036209
18	0	0		0	2825.090523	1.130036209
19	0	0		18	2807.090523	1.122836209
20	0	0		18	2789.090523	1.115636209
21	19	253.2901448		0	3042.380667	1.216952267
22	0	0		0	3042.380667	1.216952267
23	0	0		0	3042.380667	1.216952267
24	0	0		0	3042.380667	1.216952267
25	0	0		18	3024.380667	1.209752267
26	0	0		18	3006.380667	1.202552267
27	4	53.324241		0	3059.704908	1.223881963
28	0	0		0	3059.704908	1.223881963
29	0	0		0	3059.704908	1.223881963
30	0	0		0	3059.704908	1.223881963

Mei						
1	0	0		18	3041.704908	1.216681963
2	0	0		18	3023.704908	1.209481963
3	9	119.9795423		0	3143.684451	1.25747378
4	0	0		0	3143.684451	1.25747378
5	0	0		0	3143.684451	1.25747378
6	0	0		0	3143.684451	1.25747378
7	0	0		18	3125.684451	1.25027378
8	0	0		18	3107.684451	1.24307378
9	0	0		18	3089.684451	1.23587378
10	0	0		18	3071.684451	1.22867378
11	0	0		18	3053.684451	1.22147378
12	0	0		18	3035.684451	1.21427378
13	0	0		18	3017.684451	1.20707378
14	24	319.945446		0	3337.629897	1.335051959
15	17	226.6280243		0	3564.257921	1.425703168
16	0	0		0	3564.257921	1.425703168
17	0	0		0	3564.257921	1.425703168
18	0	0		0	3564.257921	1.425703168
19	0	0		18	3546.257921	1.418503168
20	0	0		18	3528.257921	1.411303168
21	0	0		18	3510.257921	1.404103168
22	0	0		18	3492.257921	1.396903168
23	0	0		18	3474.257921	1.389703168
24	0	0		18	3456.257921	1.382503168
25	0	0		18	3438.257921	1.375303168
26	0	0		18	3420.257921	1.368103168
27	0	0		18	3402.257921	1.360903168
28	0	0		18	3384.257921	1.353703168
29	0	0		18	3366.257921	1.346503168
30	0	0		18	3348.257921	1.339303168
31	0	0		18	3330.257921	1.332103168
Juni						
1	0	0		18	3312.257921	1.324903168
2	0	0		18	3294.257921	1.317703168
3	0	0		18	3276.257921	1.310503168
4	0	0		18	3258.257921	1.303303168
5	0	0		18	3240.257921	1.296103168
6	0	0		18	3222.257921	1.288903168
7	0	0		18	3204.257921	1.281703168
8	0	0		18	3186.257921	1.274503168
9	0	0		18	3168.257921	1.267303168
10	0	0		18	3150.257921	1.260103168
11	0	0		18	3132.257921	1.252903168
12	0	0		18	3114.257921	1.245703168
13	0	0		18	3096.257921	1.238503168
14	0	0		18	3078.257921	1.231303168
15	0	0		18	3060.257921	1.224103168
16	0	0		18	3042.257921	1.216903168
17	0	0		18	3024.257921	1.209703168
18	0	0		18	3006.257921	1.202503168
19	0	0		18	2988.257921	1.195303168
20	0	0		18	2970.257921	1.188103168
21	0	0		18	2952.257921	1.180903168
22	0	0		18	2934.257921	1.173703168
23	0	0		18	2916.257921	1.166503168
24	0	0		18	2898.257921	1.159303168
25	0	0		18	2880.257921	1.152103168
26	0	0		18	2862.257921	1.144903168
27	0	0		18	2844.257921	1.137703168
28	0	0		18	2826.257921	1.130503168
29	0	0		18	2808.257921	1.123303168
30	0	0		18	2790.257921	1.116103168
Juli						
1	0	0		18	2772.257921	1.108903168
2	0	0		18	2754.257921	1.101703168
3	0	0		18	2736.257921	1.094503168
4	0	0		18	2718.257921	1.087303168
5	0	0		18	2700.257921	1.080103168
6	0	0		18	2682.257921	1.072903168
7	0	0		18	2664.257921	1.065703168
8	0	0		18	2646.257921	1.058503168
9	0	0		18	2628.257921	1.051303168
10	0	0		18	2610.257921	1.044103168



11	0	0		18	2592.257921	1.036903168
12	0	0		18	2574.257921	1.029703168
13	0	0		18	2556.257921	1.022503168
14	0	0		18	2538.257921	1.015303168
15	0	0		18	2520.257921	1.008103168
16	0	0		18	2502.257921	1.000903168
17	0	0		18	2484.257921	0.993703168
18	0	0		18	2466.257921	0.986503168
19	0	0		18	2448.257921	0.979303168
20	0	0		18	2430.257921	0.972103168
21	0	0		18	2412.257921	0.964903168
22	0	0		18	2394.257921	0.957703168
23	0	0		18	2376.257921	0.950503168
24	0	0		18	2358.257921	0.943303168
25	0	0		18	2340.257921	0.936103168
26	0	0		18	2322.257921	0.928903168
27	0	0		18	2304.257921	0.921703168
28	0	0		18	2286.257921	0.914503168
29	0	0		18	2268.257921	0.907303168
30	0	0		18	2250.257921	0.900103168
31	0	0		18	2232.257921	0.892903168
Agustus						
1	0	0		18	2214.257921	0.885703168
2	0	0		18	2196.257921	0.878503168
3	0	0		18	2178.257921	0.871303168
4	0	0		18	2160.257921	0.864103168
5	0	0		18	2142.257921	0.856903168
6	0	0		18	2124.257921	0.849703168
7	0	0		18	2106.257921	0.842503168
8	0	0		18	2088.257921	0.835303168
9	0	0		18	2070.257921	0.828103168
10	0	0		18	2052.257921	0.820903168
11	0	0		18	2034.257921	0.813703168
12	0	0		18	2016.257921	0.806503168
13	0	0		18	1998.257921	0.799303168
14	0	0		18	1980.257921	0.792103168
15	0	0		18	1962.257921	0.784903168
16	0	0		18	1944.257921	0.777703168
17	0	0		18	1926.257921	0.770503168
18	0	0		18	1908.257921	0.763303168
19	0	0		18	1890.257921	0.756103168
20	0	0		18	1872.257921	0.748903168
21	0	0		18	1854.257921	0.741703168
22	0	0		18	1836.257921	0.734503168
23	0	0		18	1818.257921	0.727303168
24	0	0		18	1800.257921	0.720103168
25	0	0		18	1782.257921	0.712903168
26	0	0		18	1764.257921	0.705703168
27	0	0		18	1746.257921	0.698503168
28	0	0		18	1728.257921	0.691303168
29	0	0		18	1710.257921	0.684103168
30	0	0		18	1692.257921	0.676903168
31	0	0		18	1674.257921	0.669703168

September						
1	0	0		18	1656.257921	0.662503168
2	0	0		18	1638.257921	0.655303168
3	0	0		18	1620.257921	0.648103168
4	0	0		18	1602.257921	0.640903168
5	0	0		18	1584.257921	0.633703168
6	0	0		18	1566.257921	0.626503168
7	0	0		18	1548.257921	0.619303168
8	0	0		18	1530.257921	0.612103168
9	0	0		18	1512.257921	0.604903168
10	0	0		18	1494.257921	0.597703168
11	0	0		18	1476.257921	0.590503168
12	0	0		18	1458.257921	0.583303168
13	0	0		18	1440.257921	0.576103168
14	0	0		18	1422.257921	0.568903168
15	0	0		18	1404.257921	0.561703168
16	0	0		18	1386.257921	0.554503168
17	0	0		18	1368.257921	0.547303168
18	0	0		18	1350.257921	0.540103168
19	0	0		18	1332.257921	0.532903168
20	0	0		18	1314.257921	0.525703168
21	0	0		18	1296.257921	0.518503168
22	0	0		18	1278.257921	0.511303168
23	0	0		18	1260.257921	0.504103168
24	0	0		18	1242.257921	0.496903168
25	0	0		18	1224.257921	0.489703168
26	0	0		18	1206.257921	0.482503168
27	0	0		18	1188.257921	0.475303168
28	0	0		18	1170.257921	0.468103168
29	0	0		18	1152.257921	0.460903168
30	0	0		18	1134.257921	0.453703168
Oktober						
1	0	0		18	1116.257921	0.446503168
2	0	0		18	1098.257921	0.439303168
3	0	0		18	1080.257921	0.432103168
4	0	0		18	1062.257921	0.424903168
5	0	0		18	1044.257921	0.417703168
6	0	0		18	1026.257921	0.410503168
7	0	0		18	1008.257921	0.403303168
8	0	0		18	990.2579209	0.396103168
9	0	0		18	972.2579209	0.388903168
10	0	0		18	954.2579209	0.381703168
11	0	0		18	936.2579209	0.374503168
12	4	53.324241		18	917.5821619	0.388632865
13	0	0		18	953.5821619	0.381432865
14	0	0		18	935.5821619	0.374232865
15	0	0		18	917.5821619	0.367032865
16	0	0		18	899.5821619	0.359832865
17	0	0		18	881.5821619	0.352632865
18	0	0		18	863.5821619	0.345432865
19	0	0		18	845.5821619	0.338232865
20	0	0		18	827.5821619	0.331032865
21	0	0		18	809.5821619	0.323832865
22	0	0		18	791.5821619	0.316632865
23	0	0		18	773.5821619	0.309432865
24	0	0		18	755.5821619	0.302232865
25	0	0		18	737.5821619	0.295032865
26	0	0		18	719.5821619	0.287832865
27	0	0		18	701.5821619	0.280632865
28	0	0		18	683.5821619	0.273432865
29	0	0		18	665.5821619	0.266232865
30	0	0		18	647.5821619	0.259032865
31	0	0		18	629.5821619	0.251832865
November						
1	0	0		18	611.5821619	0.244632865
2	0	0		18	593.5821619	0.237432865
3	0	0		18	575.5821619	0.230232865
4	0	0		18	557.5821619	0.223032865
5	0	0		18	539.5821619	0.215832865
6	0	0		18	521.5821619	0.208632865
7	0	0		18	503.5821619	0.201432865
8	10	133.3106025		0	636.8927644	0.254757106
9	0	0		0	636.8927644	0.254757106
10	0	0		0	636.8927644	0.254757106

11	0	0		0	636.8927644	0.254757106
12	0	0		18	618.8927644	0.247557106
13	0	0		18	600.8927644	0.240357106
14	0	0		18	582.8927644	0.233157106
15	0	0		18	564.8927644	0.225957106
16	0	0		18	546.8927644	0.218757106
17	0	0		18	528.8927644	0.211557106
18	13	173.3037833		0	702.1965476	0.280878619
19	5	66.65530125		0	768.8518489	0.30754074
20	47	626.5598318		0	1395.411681	0.558164672
21	0	0		0	1395.411681	0.558164672
22	0	0		0	1395.411681	0.558164672
23	0	0		0	1395.411681	0.558164672
24	0	0		18	1377.411681	0.550964672
25	0	0		18	1359.411681	0.543764672
26	0	0		18	1341.411681	0.536564672
27	0	0		18	1323.411681	0.529364672
28	0	0		18	1305.411681	0.522164672
29	0	0		18	1287.411681	0.514964672
30	0	0		18	1269.411681	0.507764672
Desember						
1	47	626.5598318		0	1895.971512	0.758388605
2	31	413.2628678		0	2309.23438	0.923693752
3	24	319.945446		0	2629.179826	1.05167193
4	0	0		0	2629.179826	1.05167193
5	40	533.24241		0	3162.422236	1.264968894
6	0	0		0	3162.422236	1.264968894
7	0	0		0	3162.422236	1.264968894
8	0	0		0	3162.422236	1.264968894
9	0	0		18	3144.422236	1.257768894
10	21	279.9522653		0	3424.374501	1.369749801
11	22	293.2833255	1300	0	2417.657827	0.967063131
12	0	0		0	2417.657827	0.967063131
13	0	0		0	2417.657827	0.967063131
14	0	0		0	2417.657827	0.967063131
15	28	373.269687		0	2790.927514	1.116371006
16	0	0		0	2790.927514	1.116371006
17	11	146.6416628		0	2937.569177	1.175027671
18	10	133.3106025		0	3070.879779	1.228351912
19	0	0		0	3070.879779	1.228351912
20	10	133.3106025		0	3204.190382	1.281676153
21	18	239.9590845	1300	0	2144.149466	0.857659786
22	15	199.9659038		0	2344.11537	0.937646148
23	16	213.296964	1300	0	1257.412334	0.502964934
24	0	0		0	1257.412334	0.502964934
25	0	0		0	1257.412334	0.502964934
26	26	346.6075665		0	1604.0199	0.64160796
27	64	853.187856	1300	0	1157.207756	0.462883103
28	30	399.9318075		0	1557.139564	0.622855826
29	20	266.621205		0	1823.760769	0.729504308
30	45	599.8977113	1300	0	1123.65848	0.449463392
31	48	639.890892		0	1763.549372	0.705419749

## PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	38	506.58029		0	2270.129662	0.908051865
2	30	399.931808		0	2670.061469	1.068024588
3	12	159.972723		0	2830.034192	1.132013677
4	65	866.518916		0	3696.553108	1.478621243
5	0	0		0	3696.553108	1.478621243
6	0	0		0	3696.553108	1.478621243
7	22	293.283326		0	3989.836434	1.595934574
8	0	0		0	3989.836434	1.595934574
9	0	0		0	3989.836434	1.595934574
10	0	0		0	3989.836434	1.595934574
11	0	0		18	3971.836434	1.588734574
12	0	0		18	3953.836434	1.581534574
13	0	0		18	3935.836434	1.574334574
14	0	0		18	3917.836434	1.567134574
15	42	559.904531		0	4477.740964	1.791096386
16	0	0		0	4477.740964	1.791096386
17	0	0		0	4477.740964	1.791096386
18	26	346.607567		0	4824.348531	1.929739412
19	47	626.559832		0	5450.908363	2.180363345
20	0	0		0	5450.908363	2.180363345
21	22	293.283326		0	5744.191688	2.297676675
22	30	399.931808		0	6144.123496	2.457649398
23	14	186.634844		0	6330.758339	2.532303336
24	0	0		0	6330.758339	2.532303336
25	11	146.641663		0	6477.400002	2.590960001
26	0	0		0	6477.400002	2.590960001
27	62	826.525736		0	7303.925737	2.921570295
28	66	879.849977	1300	0	6883.775714	2.753510286
29	58	773.201495	1300	0	6356.977208	2.542790883
30	0	0		0	6356.977208	2.542790883
31	0	0		0	6356.977208	2.542790883
Februari						
1	0	0		0	6356.977208	2.542790883
2	8	106.648482		0	6463.62569	2.585450276
3	15	199.965904		0	6663.591594	2.665436638
4	25	333.276506		0	6996.8681	2.79874724
5	0	0		0	6996.8681	2.79874724
6	0	0		0	6996.8681	2.79874724
7	0	0		0	6996.8681	2.79874724
8	0	0		18	6978.8681	2.79154724
9	0	0		18	6960.8681	2.78434724
10	0	0		18	6942.8681	2.77714724
11	7	93.3174218		0	7036.185522	2.814474209
12	0	0		0	7036.185522	2.814474209
13	0	0		0	7036.185522	2.814474209
14	20	266.621205		0	7302.806727	2.921122691
15	19	253.290145	1300	0	6256.096872	2.502438749
16	0	0		0	6256.096872	2.502438749
17	45	599.897711	1300	0	5555.994583	2.222397833
18	0	0		0	5555.994583	2.222397833
19	0	0		0	5555.994583	2.222397833
20	0	0		0	5555.994583	2.222397833
21	0	0		18	5537.994583	2.215197833
22	0	0		18	5519.994583	2.207997833
23	0	0		18	5501.994583	2.200797833
24	0	0		18	5483.994583	2.193597833
25	25	333.276506		0	5817.271089	2.326908436
26	10	133.310603		0	5950.581692	2.380232677
27	50	666.553013		0	6617.134704	2.646853882
28	38	506.58029		0	7123.714994	2.849485998
Maret						
1	0	0		0	7123.714994	2.849485998
2	0	0		0	7123.714994	2.849485998
3	8	106.648482		0	7230.363476	2.89214539
4	12	159.972723		0	7390.336199	2.95613448
5	0	0		0	7390.336199	2.95613448
6	10	133.310603	1300	0	6223.646801	2.489458721
7	0	0		0	6223.646801	2.489458721
8	0	0		0	6223.646801	2.489458721
9	10	133.310603	1300	0	5056.957404	2.022782962

10	18	239.959085		0	5296.916488	2.118766595
11	22	293.283326		0	5590.199814	2.236079926
12	35	466.587109		0	6056.786923	2.422714769
13	20	266.621205	1300	0	5023.408128	2.009363251
14	25	333.276506	1300	0	4056.684634	1.622673854
15	40	533.24241		0	4589.927044	1.835970818
16	25	333.276506		0	4923.20355	1.96928142
17	21	279.952265		0	5203.155815	2.081262326
18	20	266.621205		0	5469.77702	2.187910808
19	35	466.587109	1300	0	4636.364129	1.854545652
20	0	0		0	4636.364129	1.854545652
21	0	0		0	4636.364129	1.854545652
22	0	0		0	4636.364129	1.854545652
23	0	0		18	4618.364129	1.847345652
24	0	0		18	4600.364129	1.840145652
25	0	0		18	4582.364129	1.832945652
26	0	0		18	4564.364129	1.825745652
27	0	0		18	4546.364129	1.818545652
28	53	706.546193		0	5252.910322	2.101164129
29	25	333.276506		0	5586.186829	2.234474731
30	0	0		0	5586.186829	2.234474731
31	0	0		0	5586.186829	2.234474731
April						
1	30	399.931808		0	5986.118636	2.394447454
2	10	133.310603		0	6119.429239	2.447771695
3	0	0		0	6119.429239	2.447771695
4	12	159.972723	1300	0	4979.401962	1.991760785
5	0	0		0	4979.401962	1.991760785
6	30	399.931808		0	5379.333769	2.151733508
7	0	0		0	5379.333769	2.151733508
8	20	266.621205		0	5645.954974	2.25838199
9	22	293.283326		0	5939.2383	2.37569532
10	0	0		0	5939.2383	2.37569532
11	0	0		0	5939.2383	2.37569532
12	0	0		18	5921.2383	2.36849532
13	12	159.972723		0	6081.211023	2.432484409
14	6	79.9863615		18	6143.197384	2.457278954
15	20	266.621205	1300	0	5109.818589	2.043927436
16	25	333.276506	1300	0	4143.095095	1.657238038
17	0	0		0	4143.095095	1.657238038
18	0	0		0	4143.095095	1.657238038
19	8	106.648482		0	4249.743577	1.699897431
20	7	93.3174218		0	4343.060999	1.7372244
21	5	66.6553013		0	4409.7163	1.76388652
22	0	0		0	4409.7163	1.76388652
23	80	1066.48482	1300	0	4176.20112	1.670480448
24	0	0		0	4176.20112	1.670480448
25	0	0		0	4176.20112	1.670480448
26	0	0		0	4176.20112	1.670480448
27	0	0		18	4158.20112	1.663280448
28	5	66.6553013		0	4224.856422	1.689942569
29	0	0		0	4224.856422	1.689942569
30	0	0		0	4224.856422	1.689942569

Mei						
1	10	133.310603		0	4358.167024	1.74326681
2	0	0		0	4358.167024	1.74326681
3	0	0		0	4358.167024	1.74326681
4	0	0		0	4358.167024	1.74326681
5	0	0		18	4340.167024	1.73606681
6	0	0		18	4322.167024	1.72886681
7	0	0		18	4304.167024	1.72166681
8	0	0		18	4286.167024	1.71446681
9	20	266.621205	1300	0	3252.788229	1.301115292
10	12	159.972723		0	3412.760952	1.365104381
11	0	0		0	3412.760952	1.365104381
12	18	239.959085		0	3652.720037	1.461088015
13	0	0		0	3652.720037	1.461088015
14	47	626.559832		0	4279.279868	1.711711947
15	0	0		0	4279.279868	1.711711947
16	0	0		0	4279.279868	1.711711947
17	0	0		0	4279.279868	1.711711947
18	0	0		18	4261.279868	1.704511947
19	0	0		18	4243.279868	1.697311947
20	19	253.290145		0	4496.570013	1.798628005
21	8	106.648482		0	4603.218495	1.841287398
22	10	133.310603		0	4736.529098	1.894611639
23	12	159.972723	1300	0	3596.501821	1.438600728
24	70	933.174218		0	4529.676038	1.811870415
25	0	0		0	4529.676038	1.811870415
26	0	0		0	4529.676038	1.811870415
27	42	559.904531	1300	0	3789.580569	1.515832227
28	25	333.276506	1300	0	2822.857075	1.12914283
29	0	0		0	2822.857075	1.12914283
30	0	0		0	2822.857075	1.12914283
31	0	0		0	2822.857075	1.12914283
Juni						
1	0	0		18	2804.857075	1.12194283
2	0	0		18	2786.857075	1.11474283
3	15	199.965904		0	2986.822979	1.194729191
4	0	0		0	2986.822979	1.194729191
5	0	0		0	2986.822979	1.194729191
6	25	333.276506		0	3320.099485	1.328039794
7	17	226.628024		0	3546.727509	1.418691004
8	0	0		0	3546.727509	1.418691004
9	5	66.6553013		0	3613.38281	1.445353124
10	0	0		0	3613.38281	1.445353124
11	0	0		0	3613.38281	1.445353124
12	0	0		0	3613.38281	1.445353124
13	0	0		18	3595.38281	1.438153124
14	5	66.6553013		0	3662.038112	1.464815245
15	39	519.91135		0	4181.949461	1.672779785
16	0	0		0	4181.949461	1.672779785
17	0	0		0	4181.949461	1.672779785
18	52	693.215133	1300	0	3575.164594	1.430065838
19	0	0		0	3575.164594	1.430065838
20	0	0		0	3575.164594	1.430065838
21	0	0		0	3575.164594	1.430065838
22	0	0		18	3557.164594	1.422865838
23	0	0		18	3539.164594	1.415665838
24	0	0		18	3521.164594	1.408465838
25	0	0		0	3521.164594	1.408465838
26	8	106.648482		0	3627.813076	1.451125231
27	15	199.965904		0	3827.77898	1.531111592
28	41	546.57347		0	4374.35245	1.74974098
29	0	0		0	4374.35245	1.74974098
30	0	0		0	4374.35245	1.74974098
Juli						
1	0	0		0	4374.35245	1.74974098
2	0	0		18	4356.35245	1.74254098
3	65	866.518916	1300	0	3922.871367	1.569148547
4	0	0		0	3922.871367	1.569148547
5	0	0		0	3922.871367	1.569148547
6	0	0		0	3922.871367	1.569148547
7	0	0		18	3904.871367	1.561948547
8	0	0		18	3886.871367	1.554748547
9	0	0		18	3868.871367	1.547548547
10	0	0		18	3850.871367	1.540348547

11	0	0		18	3832.871367	1.533148547
12	0	0		18	3814.871367	1.525948547
13	0	0		18	3796.871367	1.518748547
14	0	0		18	3778.871367	1.511548547
15	0	0		18	3760.871367	1.504348547
16	0	0		18	3742.871367	1.497148547
17	0	0		18	3724.871367	1.489948547
18	0	0		18	3706.871367	1.482748547
19	0	0		18	3688.871367	1.475548547
20	0	0		18	3670.871367	1.468348547
21	0	0		18	3652.871367	1.461148547
22	7	93.3174218		0	3746.188788	1.498475515
23	0	0		0	3746.188788	1.498475515
24	0	0		0	3746.188788	1.498475515
25	0	0		0	3746.188788	1.498475515
26	0	0		18	3728.188788	1.491275515
27	0	0		18	3710.188788	1.484075515
28	0	0		18	3692.188788	1.476875515
29	0	0		18	3674.188788	1.469675515
30	0	0		18	3656.188788	1.462475515
31	0	0		18	3638.188788	1.455275515
Agustus						
1	0	0		18	3620.188788	1.448075515
2	0	0		18	3602.188788	1.440875515
3	0	0		18	3584.188788	1.433675515
4	0	0		18	3566.188788	1.426475515
5	0	0		18	3548.188788	1.419275515
6	0	0		18	3530.188788	1.412075515
7	0	0		18	3512.188788	1.404875515
8	0	0		18	3494.188788	1.397675515
9	0	0		18	3476.188788	1.390475515
10	0	0		18	3458.188788	1.383275515
11	0	0		18	3440.188788	1.376075515
12	0	0		18	3422.188788	1.368875515
13	0	0		18	3404.188788	1.361675515
14	0	0		18	3386.188788	1.354475515
15	0	0		18	3368.188788	1.347275515
16	0	0		18	3350.188788	1.340075515
17	0	0		18	3332.188788	1.332875515
18	0	0		18	3314.188788	1.325675515
19	0	0		18	3296.188788	1.318475515
20	0	0		18	3278.188788	1.311275515
21	0	0		18	3260.188788	1.304075515
22	0	0		18	3242.188788	1.296875515
23	0	0		18	3224.188788	1.289675515
24	0	0		18	3206.188788	1.282475515
25	0	0		18	3188.188788	1.275275515
26	0	0		18	3170.188788	1.268075515
27	0	0		18	3152.188788	1.260875515
28	0	0		18	3134.188788	1.253675515
29	0	0		18	3116.188788	1.246475515
30	0	0		18	3098.188788	1.239275515
31	0	0		18	3080.188788	1.232075515

September						
1	0	0		18	3062.188788	1.224875515
2	0	0		18	3044.188788	1.217675515
3	0	0		18	3026.188788	1.210475515
4	0	0		18	3008.188788	1.203275515
5	0	0		18	2990.188788	1.196075515
6	0	0		18	2972.188788	1.188875515
7	0	0		18	2954.188788	1.181675515
8	0	0		18	2936.188788	1.174475515
9	0	0		18	2918.188788	1.167275515
10	0	0		18	2900.188788	1.160075515
11	0	0		18	2882.188788	1.152875515
12	0	0		18	2864.188788	1.145675515
13	0	0		18	2846.188788	1.138475515
14	0	0		18	2828.188788	1.131275515
15	0	0		18	2810.188788	1.124075515
16	0	0		18	2792.188788	1.116875515
17	0	0		18	2774.188788	1.109675515
18	0	0		18	2756.188788	1.102475515
19	0	0		18	2738.188788	1.095275515
20	0	0		18	2720.188788	1.088075515
21	0	0		18	2702.188788	1.080875515
22	0	0		18	2684.188788	1.073675515
23	0	0		18	2666.188788	1.066475515
24	0	0		18	2648.188788	1.059275515
25	0	0		18	2630.188788	1.052075515
26	0	0		18	2612.188788	1.044875515
27	0	0		18	2594.188788	1.037675515
28	0	0		18	2576.188788	1.030475515
29	0	0		18	2558.188788	1.023275515
30	0	0		18	2540.188788	1.016075515
Oktober						
1	0	0		18	2522.188788	1.008875515
2	0	0		18	2504.188788	1.001675515
3	0	0		18	2486.188788	0.994475515
4	0	0		18	2468.188788	0.987275515
5	0	0		18	2450.188788	0.980075515
6	0	0		18	2432.188788	0.972875515
7	0	0		18	2414.188788	0.965675515
8	0	0		18	2396.188788	0.958475515
9	0	0		18	2378.188788	0.951275515
10	0	0		18	2360.188788	0.944075515
11	0	0		18	2342.188788	0.936875515
12	0	0		18	2324.188788	0.929675515
13	0	0		18	2306.188788	0.922475515
14	0	0		18	2288.188788	0.915275515
15	0	0		18	2270.188788	0.908075515
16	0	0		18	2252.188788	0.900875515
17	0	0		18	2234.188788	0.893675515
18	0	0		18	2216.188788	0.886475515
19	0	0		18	2198.188788	0.879275515
20	0	0		18	2180.188788	0.872075515
21	0	0		18	2162.188788	0.864875515
22	0	0		18	2144.188788	0.857675515
23	0	0		18	2126.188788	0.850475515
24	0	0		18	2108.188788	0.843275515
25	0	0		18	2090.188788	0.836075515
26	0	0		18	2072.188788	0.828875515
27	0	0		18	2054.188788	0.821675515
28	0	0		18	2036.188788	0.814475515
29	0	0		18	2018.188788	0.807275515
30	0	0		18	2000.188788	0.800075515
31	0	0		18	1982.188788	0.792875515
November						
1	0	0		18	1964.188788	0.785675515
2	0	0		18	1946.188788	0.778475515
3	0	0		18	1928.188788	0.771275515
4	0	0		18	1910.188788	0.764075515
5	0	0		18	1892.188788	0.756875515
6	0	0		18	1874.188788	0.749675515
7	0	0		18	1856.188788	0.742475515
8	0	0		18	1838.188788	0.735275515
9	0	0		18	1820.188788	0.728075515
10	0	0		18	1802.188788	0.720875515



11	0	0		18	1784.188788	0.713675515
12	0	0		18	1766.188788	0.706475515
13	0	0		18	1748.188788	0.699275515
14	0	0		18	1730.188788	0.692075515
15	5	66.6553013		0	1796.84409	0.718737636
16	10	133.310603		0	1930.154692	0.772061877
17	5	66.6553013		0	1996.809993	0.798723997
18	0	0		0	1996.809993	0.798723997
19	0	0		0	1996.809993	0.798723997
20	15	199.965904		0	2196.775897	0.878710359
21	0	0		0	2196.775897	0.878710359
22	10	133.310603		0	2330.0865	0.9320346
23	0	0		0	2330.0865	0.9320346
24	0	0		0	2330.0865	0.9320346
25	7	93.3174218		0	2423.403921	0.969361569
26	30	399.931808		0	2823.335729	1.129334292
27	0	0		0	2823.335729	1.129334292
28	15	199.965904		0	3023.301633	1.209320653
29	20	266.621205		0	3289.922838	1.315969135
30	0	0		0	3289.922838	1.315969135
Desember						
1	0	0		0	3289.922838	1.315969135
2	15	199.965904		0	3489.888741	1.395955497
3	0	0		0	3489.888741	1.395955497
4	0	0		0	3489.888741	1.395955497
5	31	413.262868		0	3903.151609	1.561260644
6	10	133.310603		0	4036.462212	1.614584885
7	0	0		0	4036.462212	1.614584885
8	25	333.276506		0	4369.738718	1.747895487
9	6	79.9863615		0	4449.725079	1.779890032
10	5	66.6553013		0	4516.380381	1.806552152
11	10	133.310603		0	4649.690983	1.859876393
12	15	199.965904		0	4849.656887	1.939862755
13	20	266.621205	1300	0	3816.278092	1.526511237
14	40	533.24241		0	4349.520502	1.739808201
15	20	266.621205	1300	0	3316.141707	1.326456683
16	62	826.525736		0	4142.667442	1.657066977
17	30	399.931808		0	4542.59925	1.8170397
18	0	0		0	4542.59925	1.8170397
19	0	0		0	4542.59925	1.8170397
20	0	0		0	4542.59925	1.8170397
21	0	0		18	4524.59925	1.8098397
22	0	0		18	4506.59925	1.8026397
23	0	0		18	4488.59925	1.7954397
24	0	0		18	4470.59925	1.7882397
25	0	0		18	4452.59925	1.7810397
26	0	0		18	4434.59925	1.7738397
27	0	0		18	4416.59925	1.7666397
28	0	0		18	4398.59925	1.7594397
29	0	0		18	4380.59925	1.7522397
30	0	0		18	4362.59925	1.7450397
31	0	0		18	4344.59925	1.7378397

**PERPUSTAKAAN ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	38	506.58029			0	2270.129662
2	30	399.931808			0	2670.061469
3	12	159.972723			0	2830.034192
4	65	866.518916			0	3696.553108
5	0	0			0	3696.553108
6	0	0			0	3696.553108
7	22	293.283326			0	3989.836434
8	0	0			0	3989.836434
9	0	0			0	3989.836434
10	0	0			0	3989.836434
11	0	0			18	3971.836434
12	0	0			18	3953.836434
13	0	0			18	3935.836434
14	0	0			18	3917.836434
15	42	559.904531			0	4477.740964
16	0	0			0	4477.740964
17	0	0			0	4477.740964
18	26	346.607567			0	4824.348531
19	47	626.559832			0	5450.908363
20	0	0			0	5450.908363
21	22	293.283326			0	5744.191688
22	30	399.931808			0	6144.123496
23	14	186.634844			0	6330.758339
24	0	0			0	6330.758339
25	11	146.641663			0	6477.400002
26	0	0			0	6477.400002
27	62	826.525736			0	7303.925737
28	66	879.849977	1300		0	6883.775714
29	58	773.201495	1300		0	6356.977208
30	0	0			0	6356.977208
31	0	0			0	6356.977208
<b>Februari</b>						
1	0	0			0	6356.977208
2	8	106.648482			0	6463.62569
3	15	199.965904			0	6663.591594
4	25	333.276506			0	6996.8681
5	0	0			0	6996.8681
6	0	0			0	6996.8681
7	0	0			0	6996.8681
8	0	0			18	6978.8681
9	0	0			18	6960.8681
10	0	0			18	6942.8681
11	7	93.3174218			0	7036.185522
12	0	0			0	7036.185522
13	0	0			0	7036.185522
14	20	266.621205			0	7302.806727
15	19	253.290145	1300		0	6256.096872
16	0	0			0	6256.096872
17	45	599.897711	1300		0	5555.994583
18	0	0			0	5555.994583
19	0	0			0	5555.994583
20	0	0			0	5555.994583
21	0	0			18	5537.994583
22	0	0			18	5519.994583
23	0	0			18	5501.994583
24	0	0			18	5483.994583
25	25	333.276506			0	5817.271089
26	10	133.310603			0	5950.581692
27	50	666.553013			0	6617.134704
28	38	506.58029			0	7123.714994
<b>Maret</b>						
1	0	0			0	7123.714994
2	0	0			0	7123.714994
3	8	106.648482			0	7230.363476
4	12	159.972723			0	7390.336199
5	0	0			0	7390.336199
6	10	133.310603	1300		0	6223.646801
7	0	0			0	6223.646801
8	0	0			0	6223.646801
9	10	133.310603	1300		0	5056.957404
10	18	239.959085			0	5296.916488
11	22	293.283326			0	5590.199814
12	35	466.587109			0	6056.786923
13	20	266.621205	1300		0	5023.408128
14	25	333.276506	1300		0	4056.684634
15	40	533.24241			0	4589.927044
16	25	333.276506			0	4923.20355

17	21	279.952265		0	5203.155815	2.081262326
18	20	266.621205		0	5469.77702	2.187910808
19	35	466.587109	1300	0	4636.364129	1.854545652
20	0	0		0	4636.364129	1.854545652
21	0	0		0	4636.364129	1.854545652
22	0	0		0	4636.364129	1.854545652
23	0	0		18	4618.364129	1.847345652
24	0	0		18	4600.364129	1.840145652
25	0	0		18	4582.364129	1.832945652
26	0	0		18	4564.364129	1.825745652
27	0	0		18	4546.364129	1.818545652
28	53	706.546193		0	5252.910322	2.101164129
29	25	333.276506		0	5586.186829	2.234474731
30	0	0		0	5586.186829	2.234474731
31	0	0		0	5586.186829	2.234474731
April						
1	30	399.931808		0	5986.118636	2.394447454
2	10	133.310603		0	6119.429239	2.447771695
3	0	0		0	6119.429239	2.447771695
4	12	159.972723	1300	0	4979.401962	1.991760785
5	0	0		0	4979.401962	1.991760785
6	30	399.931808		0	5379.333769	2.151733508
7	0	0		0	5379.333769	2.151733508
8	20	266.621205		0	5645.954974	2.25838199
9	22	293.283326		0	5939.2383	2.37569532
10	0	0		0	5939.2383	2.37569532
11	0	0		0	5939.2383	2.37569532
12	0	0		18	5921.2383	2.36849532
13	12	159.972723		0	6081.211023	2.432484409
14	6	79.9863615		18	6143.197384	2.457278954
15	20	266.621205	1300	0	5109.818589	2.043927436
16	25	333.276506	1300	0	4143.095095	1.657238038
17	0	0		0	4143.095095	1.657238038
18	0	0		0	4143.095095	1.657238038
19	8	106.648482		0	4249.743577	1.699897431
20	7	93.3174218		0	4343.060999	1.7372244
21	5	66.6553013		0	4409.7163	1.76388652
22	0	0		0	4409.7163	1.76388652
23	80	1066.48482	1300	0	4176.20112	1.670480448
24	0	0		0	4176.20112	1.670480448
25	0	0		0	4176.20112	1.670480448
26	0	0		0	4176.20112	1.670480448
27	0	0		18	4158.20112	1.663280448
28	5	66.6553013		0	4224.856422	1.689942569
29	0	0		0	4224.856422	1.689942569
30	0	0		0	4224.856422	1.689942569

Mei						
1	10	133.310603		0	4358.167024	1.74326681
2	0	0		0	4358.167024	1.74326681
3	0	0		0	4358.167024	1.74326681
4	0	0		0	4358.167024	1.74326681
5	0	0		18	4340.167024	1.73606681
6	0	0		18	4322.167024	1.72886681
7	0	0		18	4304.167024	1.72166681
8	0	0		18	4286.167024	1.71446681
9	20	266.621205	1300	0	3252.788229	1.301115292
10	12	159.972723		0	3412.760952	1.365104381
11	0	0		0	3412.760952	1.365104381
12	18	239.959085		0	3652.720037	1.461088015
13	0	0		0	3652.720037	1.461088015
14	47	626.559832		0	4279.279868	1.711711947
15	0	0		0	4279.279868	1.711711947
16	0	0		0	4279.279868	1.711711947
17	0	0		0	4279.279868	1.711711947
18	0	0		18	4261.279868	1.704511947
19	0	0		18	4243.279868	1.697311947
20	19	253.290145		0	4496.570013	1.798628005
21	8	106.648482		0	4603.218495	1.841287398
22	10	133.310603		0	4736.529098	1.894611639
23	12	159.972723	1300	0	3596.501821	1.438600728
24	70	933.174218		0	4529.676038	1.811870415
25	0	0		0	4529.676038	1.811870415
26	0	0		0	4529.676038	1.811870415
27	42	559.904531	1300	0	3789.580569	1.515832227
28	25	333.276506	1300	0	2822.857075	1.12914283
29	0	0		0	2822.857075	1.12914283
30	0	0		0	2822.857075	1.12914283
31	0	0		0	2822.857075	1.12914283
Juni						
1	0	0		18	2804.857075	1.12194283
2	0	0		18	2786.857075	1.11474283
3	15	199.965904		0	2986.822979	1.194729191
4	0	0		0	2986.822979	1.194729191
5	0	0		0	2986.822979	1.194729191
6	25	333.276506		0	3320.099485	1.328039794
7	17	226.628024		0	3546.727509	1.418691004
8	0	0		0	3546.727509	1.418691004
9	5	66.6553013		0	3613.38281	1.445353124
10	0	0		0	3613.38281	1.445353124
11	0	0		0	3613.38281	1.445353124
12	0	0		0	3613.38281	1.445353124
13	0	0		18	3595.38281	1.438153124
14	5	66.6553013		0	3662.038112	1.464815245
15	39	519.91135		0	4181.949461	1.672779785
16	0	0		0	4181.949461	1.672779785
17	0	0		0	4181.949461	1.672779785
18	52	693.215133	1300	0	3575.164594	1.430065838
19	0	0		0	3575.164594	1.430065838
20	0	0		0	3575.164594	1.430065838
21	0	0		0	3575.164594	1.430065838
22	0	0		18	3557.164594	1.422865838
23	0	0		18	3539.164594	1.415665838
24	0	0		18	3521.164594	1.408465838
25	0	0		0	3521.164594	1.408465838
26	8	106.648482		0	3627.813076	1.451125231
27	15	199.965904		0	3827.77898	1.531111592
28	41	546.57347		0	4374.35245	1.74974098
29	0	0		0	4374.35245	1.74974098
30	0	0		0	4374.35245	1.74974098
Juli						
1	0	0		0	4374.35245	1.74974098
2	0	0		18	4356.35245	1.74254098
3	65	866.518916	1300	0	3922.871367	1.569148547
4	0	0		0	3922.871367	1.569148547
5	0	0		0	3922.871367	1.569148547
6	0	0		0	3922.871367	1.569148547
7	0	0		18	3904.871367	1.561948547
8	0	0		18	3886.871367	1.554748547
9	0	0		18	3868.871367	1.547548547
10	0	0		18	3850.871367	1.540348547
11	0	0		18	3832.871367	1.533148547
12	0	0		18	3814.871367	1.525948547
13	0	0		18	3796.871367	1.518748547
14	0	0		18	3778.871367	1.511548547
15	0	0		18	3760.871367	1.504348547
16	0	0		18	3742.871367	1.497148547
17	0	0		18	3724.871367	1.489948547

18	0	0		18	3706.871367	1.482748547
19	0	0		18	3688.871367	1.475548547
20	0	0		18	3670.871367	1.468348547
21	0	0		18	3652.871367	1.461148547
22	7	93.3174218		0	3746.188788	1.498475515
23	0	0		0	3746.188788	1.498475515
24	0	0		0	3746.188788	1.498475515
25	0	0		0	3746.188788	1.498475515
26	0	0		18	3728.188788	1.491275515
27	0	0		18	3710.188788	1.484075515
28	0	0		18	3692.188788	1.476875515
29	0	0		18	3674.188788	1.469675515
30	0	0		18	3656.188788	1.462475515
31	0	0		18	3638.188788	1.455275515
Agustus						
1	0	0		18	3620.188788	1.448075515
2	0	0		18	3602.188788	1.440875515
3	0	0		18	3584.188788	1.433675515
4	0	0		18	3566.188788	1.426475515
5	0	0		18	3548.188788	1.419275515
6	0	0		18	3530.188788	1.412075515
7	0	0		18	3512.188788	1.404875515
8	0	0		18	3494.188788	1.397675515
9	0	0		18	3476.188788	1.390475515
10	0	0		18	3458.188788	1.383275515
11	0	0		18	3440.188788	1.376075515
12	0	0		18	3422.188788	1.368875515
13	0	0		18	3404.188788	1.361675515
14	0	0		18	3386.188788	1.354475515
15	0	0		18	3368.188788	1.347275515
16	0	0		18	3350.188788	1.340075515
17	0	0		18	3332.188788	1.332875515
18	0	0		18	3314.188788	1.325675515
19	0	0		18	3296.188788	1.318475515
20	0	0		18	3278.188788	1.311275515
21	0	0		18	3260.188788	1.304075515
22	0	0		18	3242.188788	1.296875515
23	0	0		18	3224.188788	1.289675515
24	0	0		18	3206.188788	1.282475515
25	0	0		18	3188.188788	1.275275515
26	0	0		18	3170.188788	1.268075515
27	0	0		18	3152.188788	1.260875515
28	0	0		18	3134.188788	1.253675515
29	0	0		18	3116.188788	1.246475515
30	0	0		18	3098.188788	1.239275515
31	0	0		18	3080.188788	1.232075515

September						
1	0	0		18	3062.188788	1.224875515
2	0	0		18	3044.188788	1.217675515
3	0	0		18	3026.188788	1.210475515
4	0	0		18	3008.188788	1.203275515
5	0	0		18	2990.188788	1.196075515
6	0	0		18	2972.188788	1.188875515
7	0	0		18	2954.188788	1.181675515
8	0	0		18	2936.188788	1.174475515
9	0	0		18	2918.188788	1.167275515
10	0	0		18	2900.188788	1.160075515
11	0	0		18	2882.188788	1.152875515
12	0	0		18	2864.188788	1.145675515
13	0	0		18	2846.188788	1.138475515
14	0	0		18	2828.188788	1.131275515
15	0	0		18	2810.188788	1.124075515
16	0	0		18	2792.188788	1.116875515
17	0	0		18	2774.188788	1.109675515
18	0	0		18	2756.188788	1.102475515
19	0	0		18	2738.188788	1.095275515
20	0	0		18	2720.188788	1.088075515
21	0	0		18	2702.188788	1.080875515
22	0	0		18	2684.188788	1.073675515
23	0	0		18	2666.188788	1.066475515
24	0	0		18	2648.188788	1.059275515
25	0	0		18	2630.188788	1.052075515
26	0	0		18	2612.188788	1.044875515
27	0	0		18	2594.188788	1.037675515
28	0	0		18	2576.188788	1.030475515
29	0	0		18	2558.188788	1.023275515
30	0	0		18	2540.188788	1.016075515
Oktober						
1	0	0		18	2522.188788	1.008875515
2	0	0		18	2504.188788	1.001675515
3	0	0		18	2486.188788	0.994475515
4	0	0		18	2468.188788	0.987275515
5	0	0		18	2450.188788	0.980075515
6	0	0		18	2432.188788	0.972875515
7	0	0		18	2414.188788	0.965675515
8	0	0		18	2396.188788	0.958475515
9	0	0		18	2378.188788	0.951275515
10	0	0		18	2360.188788	0.944075515
11	0	0		18	2342.188788	0.936875515
12	0	0		18	2324.188788	0.929675515
13	0	0		18	2306.188788	0.922475515
14	0	0		18	2288.188788	0.915275515
15	0	0		18	2270.188788	0.908075515
16	0	0		18	2252.188788	0.900875515
17	0	0		18	2234.188788	0.893675515
18	0	0		18	2216.188788	0.886475515
19	0	0		18	2198.188788	0.879275515
20	0	0		18	2180.188788	0.872075515
21	0	0		18	2162.188788	0.864875515
22	0	0		18	2144.188788	0.857675515
23	0	0		18	2126.188788	0.850475515
24	0	0		18	2108.188788	0.843275515
25	0	0		18	2090.188788	0.836075515
26	0	0		18	2072.188788	0.828875515
27	0	0		18	2054.188788	0.821675515
28	0	0		18	2036.188788	0.814475515
29	0	0		18	2018.188788	0.807275515
30	0	0		18	2000.188788	0.800075515
31	0	0		18	1982.188788	0.792875515
November						
1	0	0		18	1964.188788	0.785675515
2	0	0		18	1946.188788	0.778475515
3	0	0		18	1928.188788	0.771275515
4	0	0		18	1910.188788	0.764075515
5	0	0		18	1892.188788	0.756875515
6	0	0		18	1874.188788	0.749675515
7	0	0		18	1856.188788	0.742475515
8	0	0		18	1838.188788	0.735275515
9	0	0		18	1820.188788	0.728075515
10	0	0		18	1802.188788	0.720875515
11	0	0		18	1784.188788	0.713675515
12	0	0		18	1766.188788	0.706475515
13	0	0		18	1748.188788	0.699275515
14	0	0		18	1730.188788	0.692075515
15	5	66.6553013		0	1796.84409	0.718737636
16	10	133.310603		0	1930.154692	0.772061877
17	5	66.6553013		0	1996.809993	0.798723997

18	0	0		0	1996.809993	0.798723997
19	0	0		0	1996.809993	0.798723997
20	15	199.965904		0	2196.775897	0.878710359
21	0	0		0	2196.775897	0.878710359
22	10	133.310603		0	2330.0865	0.9320346
23	0	0		0	2330.0865	0.9320346
24	0	0		0	2330.0865	0.9320346
25	7	93.3174218		0	2423.403921	0.969361569
26	30	399.931808		0	2823.335729	1.129334292
27	0	0		0	2823.335729	1.129334292
28	15	199.965904		0	3023.301633	1.209320653
29	20	266.621205		0	3289.922838	1.315969135
30	0	0		0	3289.922838	1.315969135
Desember						
1	0	0		0	3289.922838	1.315969135
2	15	199.965904		0	3489.888741	1.395955497
3	0	0		0	3489.888741	1.395955497
4	0	0		0	3489.888741	1.395955497
5	31	413.262868		0	3903.151609	1.561260644
6	10	133.310603		0	4036.462212	1.614584885
7	0	0		0	4036.462212	1.614584885
8	25	333.276506		0	4369.738718	1.747895487
9	6	79.9863615		0	4449.725079	1.779890032
10	5	66.6553013		0	4516.380381	1.806552152
11	10	133.310603		0	4649.690983	1.859876393
12	15	199.965904		0	4849.656887	1.939862755
13	20	266.621205	1300	0	3816.278092	1.526511237
14	40	533.24241		0	4349.520502	1.739808201
15	20	266.621205	1300	0	3316.141707	1.326456683
16	62	826.525736		0	4142.667442	1.657066977
17	30	399.931808		0	4542.59925	1.8170397
18	0	0		0	4542.59925	1.8170397
19	0	0		0	4542.59925	1.8170397
20	0	0		0	4542.59925	1.8170397
21	0	0		18	4524.59925	1.8098397
22	0	0		18	4506.59925	1.8026397
23	0	0		18	4488.59925	1.7954397
24	0	0		18	4470.59925	1.7882397
25	0	0		18	4452.59925	1.7810397
26	0	0		18	4434.59925	1.7738397
27	0	0		18	4416.59925	1.7666397
28	0	0		18	4398.59925	1.7594397
29	0	0		18	4380.59925	1.7522397
30	0	0		18	4362.59925	1.7450397
31	0	0		18	4344.59925	1.7378397

PERPUSTAKAAN ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS(m3)	tinggi air (m)
1	0	0		18	4326.59925	1.7306397
2	0	0		18	4308.59925	1.7234397
3	22	293.283326		0	4601.882575	1.84075303
4	65	866.518916	1300	0	4168.401492	1.667360597
5	9	119.979542		0	4288.381034	1.715352414
6	15	199.965904		0	4488.346938	1.795338775
7	14	186.634844		0	4674.981781	1.869992712
8	0	0		0	4674.981781	1.869992712
9	0	0		0	4674.981781	1.869992712
10	15	199.965904		0	4874.947685	1.949979074
11	0	0		0	4874.947685	1.949979074
12	0	0		0	4874.947685	1.949979074
13	12	159.972723	1300	0	3734.920408	1.493968163
14	0	0		0	3734.920408	1.493968163
15	0	0		0	3734.920408	1.493968163
16	5	66.6553013		0	3801.575709	1.520630284
17	0	0		0	3801.575709	1.520630284
18	5	66.6553013		0	3868.23101	1.547292404
19	0	0		0	3868.23101	1.547292404
20	8	106.648482		0	3974.879492	1.589951797
21	0	0		0	3974.879492	1.589951797
22	0	0		0	3974.879492	1.589951797
23	0	0		0	3974.879492	1.589951797
24	0	0		18	3956.879492	1.582751797
25	0	0		18	3938.879492	1.575551797
26	0	0		18	3920.879492	1.568351797
27	30	399.931808	1300	0	3020.8113	1.20832452
28	6	79.9863615		0	3100.797661	1.240319065
29	5	66.6553013		0	3167.452963	1.266981185
30	0	0		0	3167.452963	1.266981185
31	0	0		0	3167.452963	1.266981185
Februari						
1	5	66.6553013		0	3234.108264	1.293643306
2	10	133.310603		0	3367.418866	1.346967547
3	15	199.965904		0	3567.38477	1.426953908
4	0	0		0	3567.38477	1.426953908
5	0	0		0	3567.38477	1.426953908
6	0	0		0	3567.38477	1.426953908
7	0	0		18	3549.38477	1.419753908
8	0	0		18	3531.38477	1.412553908
9	0	0		18	3513.38477	1.405353908
10	5	66.6553013		0	3580.040071	1.432016029
11	0	0		0	3580.040071	1.432016029
12	10	133.310603		0	3713.350674	1.48534027
13	0	0		0	3713.350674	1.48534027
14	0	0		0	3713.350674	1.48534027
15	40	533.24241		0	4246.593084	1.698637234
16	15	199.965904		0	4446.558988	1.778623595
17	70	933.174218	1300	0	4079.733205	1.631893282
18	14	186.634844		0	4266.368049	1.706547219
19	15	199.965904		0	4466.333952	1.786533581
20	10	133.310603		0	4599.644555	1.839857822
21	40	533.24241	1300	0	3832.886965	1.533154786
22	50	666.553013		0	4499.439977	1.799775991
23	20	266.621205		0	4766.061182	1.906424473
24	0	0		0	4766.061182	1.906424473
25	0	0		0	4766.061182	1.906424473
26	8	106.648482		0	4872.709664	1.949083866
27	0	0		0	4872.709664	1.949083866
28	20	266.621205	1300	0	3839.330869	1.535732348
Maret						
1	14	186.634844		0	4025.965713	1.610386285
2	20	266.621205	1300	0	2992.586918	1.197034767
3	25	333.276506	1300	0	2025.863424	0.81034537
4	30	399.931808		0	2425.795232	0.970318093
5	64	853.187856		0	3278.983088	1.311593235
6	18	239.959085	1300	0	2218.942172	0.887576869
7	0	0		0	2218.942172	0.887576869
8	0	0		0	2218.942172	0.887576869
9	26	346.607567		0	2565.549739	1.026219895



10	58	773.201495		0	3338.751233	1.335500493
11	12	159.972723		0	3498.723956	1.399489582
12	28	373.269687		0	3871.993643	1.548797457
13	56	746.539374	1300	0	3318.533017	1.327413207
14	67	893.181037		0	4211.714054	1.684685622
15	0	0		0	4211.714054	1.684685622
16	3	39.9931808		0	4251.707235	1.700682894
17	4	53.324241		0	4305.031476	1.72201259
18	2	26.6621205	1300	0	3031.693596	1.212677438
19	10	133.310603		0	3165.004199	1.266001679
20	0	0		0	3165.004199	1.266001679
21	7	93.3174218		0	3258.32162	1.303328648
22	0	0		0	3258.32162	1.303328648
23	0	0		0	3258.32162	1.303328648
24	0	0		0	3258.32162	1.303328648
25	0	0		18	3240.32162	1.296128648
26	0	0		18	3222.32162	1.288928648
27	0	0		18	3204.32162	1.281728648
28	0	0		18	3186.32162	1.274528648
29	31	413.262868		0	3599.584488	1.439833795
30	19	253.290145		0	3852.874633	1.541149853
31	10	133.310603		0	3986.185235	1.594474094
April						
1	19	253.290145		0	4239.47538	1.695790152
2	20	266.621205		0	4506.096585	1.802438634
3	25	333.276506	1300	0	3539.373091	1.415749237
4	30	399.931808		0	3939.304899	1.57572196
5	60	799.863615		0	4739.168514	1.895667406
6	19	253.290145		0	4992.458659	1.996983463
7	0	0		0	4992.458659	1.996983463
8	0	0		0	4992.458659	1.996983463
9	0	0		0	4992.458659	1.996983463
10	0	0		18	4974.458659	1.989783463
11	0	0		18	4956.458659	1.982583463
12	0	0		18	4938.458659	1.975383463
13	0	0		18	4920.458659	1.968183463
14	0	0		18	4902.458659	1.960983463
15	0	0		18	4884.458659	1.953783463
16	0	0		18	4866.458659	1.946583463
17	0	0		18	4848.458659	1.939383463
18	0	0		18	4830.458659	1.932183463
19	0	0		18	4812.458659	1.924983463
20	0	0		18	4794.458659	1.917783463
21	0	0		18	4776.458659	1.910583463
22	0	0		18	4758.458659	1.903383463
23	0	0		18	4740.458659	1.896183463
24	0	0		18	4722.458659	1.888983463
25	0	0		18	4704.458659	1.881783463
26	0	0		18	4686.458659	1.874583463
27	0	0		18	4668.458659	1.867383463
28	0	0		18	4650.458659	1.860183463
29	0	0		18	4632.458659	1.852983463
30	0	0		18	4614.458659	1.845783463

Mei						
1	0	0		18	4596.458659	1.838583463
2	0	0		18	4578.458659	1.831383463
3	0	0		18	4560.458659	1.824183463
4	0	0		18	4542.458659	1.816983463
5	0	0		18	4524.458659	1.809783463
6	0	0		18	4506.458659	1.802583463
7	0	0		18	4488.458659	1.795383463
8	0	0		18	4470.458659	1.788183463
9	0	0		18	4452.458659	1.780983463
10	0	0		18	4434.458659	1.773783463
11	0	0		18	4416.458659	1.766583463
12	0	0		18	4398.458659	1.759383463
13	0	0		18	4380.458659	1.752183463
14	0	0		18	4362.458659	1.744983463
15	0	0		18	4344.458659	1.737783463
16	0	0		18	4326.458659	1.730583463
17	0	0		18	4308.458659	1.723383463
18	0	0		18	4290.458659	1.716183463
19	0	0		18	4272.458659	1.708983463
20	0	0		18	4254.458659	1.701783463
21	0	0		18	4236.458659	1.694583463
22	0	0		18	4218.458659	1.687383463
23	0	0		18	4200.458659	1.680183463
24	0	0		18	4182.458659	1.672983463
25	0	0		18	4164.458659	1.665783463
26	0	0		18	4146.458659	1.658583463
27	0	0		18	4128.458659	1.651383463
28	0	0		18	4110.458659	1.644183463
29	0	0		18	4092.458659	1.636983463
30	0	0		18	4074.458659	1.629783463
31	0	0		18	4056.458659	1.622583463
Juni						
1	0	0		18	4038.458659	1.615383463
2	0	0		18	4020.458659	1.608183463
3	0	0		18	4002.458659	1.600983463
4	0	0		18	3984.458659	1.593783463
5	0	0		18	3966.458659	1.586583463
6	0	0		18	3948.458659	1.579383463
7	0	0		18	3930.458659	1.572183463
8	0	0		18	3912.458659	1.564983463
9	0	0		18	3894.458659	1.557783463
10	0	0		18	3876.458659	1.550583463
11	0	0		18	3858.458659	1.543383463
12	0	0		18	3840.458659	1.536183463
13	0	0		18	3822.458659	1.528983463
14	0	0		18	3804.458659	1.521783463
15	0	0		18	3786.458659	1.514583463
16	0	0		18	3768.458659	1.507383463
17	0	0		18	3750.458659	1.500183463
18	0	0		18	3732.458659	1.492983463
19	0	0		18	3714.458659	1.485783463
20	0	0		18	3696.458659	1.478583463
21	0	0		18	3678.458659	1.471383463
22	0	0		18	3660.458659	1.464183463
23	0	0		18	3642.458659	1.456983463
24	0	0		18	3624.458659	1.449783463
25	0	0		18	3606.458659	1.442583463
26	0	0		18	3588.458659	1.435383463
27	0	0		18	3570.458659	1.428183463
28	0	0		18	3552.458659	1.420983463
29	0	0		18	3534.458659	1.413783463
30	0	0		18	3516.458659	1.406583463
Juli						
1	0	0		18	3498.458659	1.399383463
2	0	0		18	3480.458659	1.392183463
3	0	0		18	3462.458659	1.384983463
4	0	0		18	3444.458659	1.377783463
5	0	0		18	3426.458659	1.370583463
6	0	0		18	3408.458659	1.363383463
7	0	0		18	3390.458659	1.356183463
8	0	0		18	3372.458659	1.348983463
9	0	0		18	3354.458659	1.341783463
10	0	0		18	3336.458659	1.334583463

11	0	0		18	3318.458659	1.327383463
12	0	0		18	3300.458659	1.320183463
13	0	0		18	3282.458659	1.312983463
14	0	0		18	3264.458659	1.305783463
15	0	0		18	3246.458659	1.298583463
16	0	0		18	3228.458659	1.291383463
17	0	0		18	3210.458659	1.284183463
18	0	0		18	3192.458659	1.276983463
19	0	0		18	3174.458659	1.269783463
20	0	0		18	3156.458659	1.262583463
21	0	0		18	3138.458659	1.255383463
22	0	0		18	3120.458659	1.248183463
23	0	0		18	3102.458659	1.240983463
24	0	0		18	3084.458659	1.233783463
25	0	0		18	3066.458659	1.226583463
26	0	0		18	3048.458659	1.219383463
27	0	0		18	3030.458659	1.212183463
28	0	0		18	3012.458659	1.204983463
29	0	0		18	2994.458659	1.197783463
30	0	0		18	2976.458659	1.190583463
31	0	0		18	2958.458659	1.183383463
Agustus						
1	0	0		18	2940.458659	1.176183463
2	0	0		18	2922.458659	1.168983463
3	0	0		18	2904.458659	1.161783463
4	0	0		18	2886.458659	1.154583463
5	0	0		18	2868.458659	1.147383463
6	0	0		18	2850.458659	1.140183463
7	0	0		18	2832.458659	1.132983463
8	0	0		18	2814.458659	1.125783463
9	0	0		18	2796.458659	1.118583463
10	0	0		18	2778.458659	1.111383463
11	0	0		18	2760.458659	1.104183463
12	0	0		18	2742.458659	1.096983463
13	0	0		18	2724.458659	1.089783463
14	0	0		18	2706.458659	1.082583463
15	0	0		18	2688.458659	1.075383463
16	0	0		18	2670.458659	1.068183463
17	0	0		18	2652.458659	1.060983463
18	0	0		18	2634.458659	1.053783463
19	0	0		18	2616.458659	1.046583463
20	0	0		18	2598.458659	1.039383463
21	0	0		18	2580.458659	1.032183463
22	0	0		18	2562.458659	1.024983463
23	0	0		18	2544.458659	1.017783463
24	0	0		18	2526.458659	1.010583463
25	0	0		18	2508.458659	1.003383463
26	0	0		18	2490.458659	0.996183463
27	0	0		18	2472.458659	0.988983463
28	0	0		18	2454.458659	0.981783463
29	0	0		18	2436.458659	0.974583463
30	0	0		18	2418.458659	0.967383463
31	0	0		18	2400.458659	0.960183463

September						
1	0	0		18	2382.458659	0.952983463
2	0	0		18	2364.458659	0.945783463
3	0	0		18	2346.458659	0.938583463
4	0	0		18	2328.458659	0.931383463
5	0	0		18	2310.458659	0.924183463
6	0	0		18	2292.458659	0.916983463
7	0	0		18	2274.458659	0.909783463
8	0	0		18	2256.458659	0.902583463
9	0	0		18	2238.458659	0.895383463
10	0	0		18	2220.458659	0.888183463
11	0	0		18	2202.458659	0.880983463
12	0	0		18	2184.458659	0.873783463
13	0	0		18	2166.458659	0.866583463
14	0	0		18	2148.458659	0.859383463
15	0	0		18	2130.458659	0.852183463
16	0	0		18	2112.458659	0.844983463
17	0	0		18	2094.458659	0.837783463
18	0	0		18	2076.458659	0.830583463
19	0	0		18	2058.458659	0.823383463
20	0	0		18	2040.458659	0.816183463
21	0	0		18	2022.458659	0.808983463
22	0	0		18	2004.458659	0.801783463
23	0	0		18	1986.458659	0.794583463
24	0	0		18	1968.458659	0.787383463
25	0	0		18	1950.458659	0.780183463
26	0	0		18	1932.458659	0.772983463
27	0	0		18	1914.458659	0.765783463
28	0	0		18	1896.458659	0.758583463
29	0	0		18	1878.458659	0.751383463
30	0	0		18	1860.458659	0.744183463
Oktober						
1	0	0		18	1842.458659	0.736983463
2	0	0		18	1824.458659	0.729783463
3	0	0		18	1806.458659	0.722583463
4	0	0		18	1788.458659	0.715383463
5	0	0		18	1770.458659	0.708183463
6	0	0		18	1752.458659	0.700983463
7	0	0		18	1734.458659	0.693783463
8	0	0		18	1716.458659	0.686583463
9	0	0		18	1698.458659	0.679383463
10	0	0		18	1680.458659	0.672183463
11	0	0		18	1662.458659	0.664983463
12	0	0		18	1644.458659	0.657783463
13	0	0		18	1626.458659	0.650583463
14	0	0		18	1608.458659	0.643383463
15	0	0		18	1590.458659	0.636183463
16	0	0		18	1572.458659	0.628983463
17	0	0		18	1554.458659	0.621783463
18	0	0		18	1536.458659	0.614583463
19	0	0		18	1518.458659	0.607383463
20	0	0		18	1500.458659	0.600183463
21	0	0		18	1482.458659	0.592983463
22	0	0		18	1464.458659	0.585783463
23	0	0		18	1446.458659	0.578583463
24	0	0		18	1428.458659	0.571383463
25	0	0		18	1410.458659	0.564183463
26	0	0		18	1392.458659	0.556983463
27	0	0		18	1374.458659	0.549783463
28	0	0		18	1356.458659	0.542583463
29	0	0		18	1338.458659	0.535383463
30	0	0		18	1320.458659	0.528183463
31	0	0		18	1302.458659	0.520983463
November						
1	0	0		18	1284.458659	0.513783463
2	0	0		18	1266.458659	0.506583463
3	0	0		18	1248.458659	0.499383463
4	0	0		18	1230.458659	0.492183463
5	0	0		18	1212.458659	0.484983463
6	0	0		18	1194.458659	0.477783463
7	0	0		18	1176.458659	0.470583463
8	0	0		18	1158.458659	0.463383463
9	0	0		18	1140.458659	0.456183463
10	0	0		18	1122.458659	0.448983463

11	0	0		18	1104.458659	0.441783463
12	0	0		18	1086.458659	0.434583463
13	0	0		18	1068.458659	0.427383463
14	0	0		18	1050.458659	0.420183463
15	0	0		18	1032.458659	0.412983463
16	12	159.972723		0	1192.431382	0.476972553
17	0	0		0	1192.431382	0.476972553
18	0	0		0	1192.431382	0.476972553
19	5.5	73.3208314		0	1265.752213	0.506300885
20	7	93.3174218		0	1359.069635	0.543627854
21	0	0		0	1359.069635	0.543627854
22	0	0		0	1359.069635	0.543627854
23	5	66.6553013		0	1425.724936	0.570289974
24	0	0		0	1425.724936	0.570289974
25	0	0		0	1425.724936	0.570289974
26	14	186.634844		0	1612.35978	0.644943912
27	15	199.965904		0	1812.325683	0.724930273
28	0	0		0	1812.325683	0.724930273
29	30	399.931808		0	2212.257491	0.884902996
30	1	13.3310603		0	2225.588551	0.89023542
Desember						
1	0	0		0	2225.588551	0.89023542
2	1.5	19.9965904		0	2245.585141	0.898234057
3	0	0		0	2245.585141	0.898234057
4	0	0		0	2245.585141	0.898234057
5	22	293.283326		0	2538.868467	1.015547387
6	10	133.310603		0	2672.179069	1.068871628
7	0	0		0	2672.179069	1.068871628
8	25	333.276506		0	3005.455576	1.20218223
9	6	79.9863615		0	3085.441937	1.234176775
10	5	66.6553013		0	3152.097238	1.260838895
11	10	133.310603		0	3285.407841	1.314163136
12	15	199.965904		0	3485.373745	1.394149498
13	20	266.621205		0	3751.99495	1.50079798
14	40	533.24241		0	4285.23736	1.714094944
15	20	266.621205		0	4551.858565	1.820743426
16	62	826.525736		0	5378.3843	2.15135372
17	30.5	406.597338	1300	0	4484.981638	1.793992655
18	0	0		0	4484.981638	1.793992655
19	134	1786.36207	1300	0	4971.343711	1.988537485
20	0	0		0	4971.343711	1.988537485
21	13.5	179.969313		0	5151.313025	2.06052521
22	6.5	86.6518916		0	5237.964916	2.095185967
23	8	106.648482		0	5344.613398	2.137845359
24	1.5	19.9965904		0	5364.609989	2.145843995
25	0	0		0	5364.609989	2.145843995
26	12.5	166.638253		0	5531.248242	2.212499297
27	23	306.614386		0	5837.862628	2.335145051
28	11	146.641663		0	5984.50429	2.393801716
29	8	106.648482		0	6091.152772	2.436461109
30	49	653.221952	1300	0	5444.374725	2.17774989
31	0	0		0	5444.374725	2.17774989

## TAMAN ALUMNI ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O	Vol O(m3)	DS(m3)	tinggi air (m)
1	20	211.03205		0	6955.144428	2.318381476
2	0	0		0	6955.144428	2.318381476
3	0	0		0	6955.144428	2.318381476
4	0	0		0	6955.144428	2.318381476
5	0	0		18	6937.144428	2.312381476
6	0	0		18	6919.144428	2.306381476
7	0	0		18	6901.144428	2.300381476
8	0	0		18	6883.144428	2.294381476
9	10	105.516025		0	6988.660453	2.329553484
10	0	0		0	6988.660453	2.329553484
11	0	0		0	6988.660453	2.329553484
12	0	0		0	6988.660453	2.329553484
13	0	0		18	6970.660453	2.323553484
14	0	0		18	6952.660453	2.317553484
15	46	485.373715	1000	0	6438.034168	2.146011389
16	0	0		0	6438.034168	2.146011389
17	13	137.1708325		0	6575.205	2.191735
18	0	0		0	6575.205	2.191735
19	0	0		0	6575.205	2.191735
20	0	0		0	6575.205	2.191735
21	35	369.3060875		0	6944.511088	2.314837029
22	49	517.0285225	1000	0	6461.53961	2.153846537
23	4	42.20641		0	6503.74602	2.16791534
24	0	0		0	6503.74602	2.16791534
25	3	31.6548075		0	6535.400828	2.178466943
26	6	63.309615		0	6598.710443	2.199570148
27	0	0		0	6598.710443	2.199570148
28	0	0		0	6598.710443	2.199570148
29	25	263.7900625	1000	0	5862.500505	1.954166835
30	0	0		0	5862.500505	1.954166835
31	12	126.61923		0	5989.119735	1.996373245
Februari				108		
1	0	0		0	5989.119735	1.996373245
2	45	474.8221125		0	6463.941848	2.154647283
3	34	358.754485		0	6822.696333	2.274232111
4	0	0		0	6822.696333	2.274232111
5	0	0		0	6822.696333	2.274232111
6	0	0		0	6822.696333	2.274232111
7	50	527.580125	1000	0	6350.276458	2.116758819
8	0	0		0	6350.276458	2.116758819
9	5	52.7580125		0	6403.03447	2.134344823
10	0	0		0	6403.03447	2.134344823
11	0	0		0	6403.03447	2.134344823
12	17	179.3772425		0	6582.411713	2.194137238
13	0	0		0	6582.411713	2.194137238
14	0	0		0	6582.411713	2.194137238
15	0	0		0	6582.411713	2.194137238
16	0	0		18	6564.411713	2.188137238
17	0	0		18	6546.411713	2.182137238
18	0	0		18	6528.411713	2.176137238
19	17	179.3772425		0	6707.788955	2.235929652
20	3	31.6548075		0	6739.443763	2.246481254
21	5	52.7580125		0	6792.201775	2.264067258
22	0	0		0	6792.201775	2.264067258
23	0	0		0	6792.201775	2.264067258
24	0	0		0	6792.201775	2.264067258
25	49	517.0285225	1000	0	6309.230298	2.103076766
26	0	0		0	6309.230298	2.103076766
27	5	52.7580125		0	6361.98831	2.12066277
28	56	590.88974		0	6952.87805	2.317626017
Maret				54		
1	51	538.1317275	1000	0	6491.009778	2.163669926
2	82	865.231405		0	7356.241183	2.452080394
3	6	63.309615		0	7419.550798	2.473183599
4	40	422.0641		0	7841.614898	2.613871633
5	0	0		0	7841.614898	2.613871633
6	7	73.8612175		0	7915.476115	2.638492038
7	12	126.61923		0	8042.095345	2.680698448
8	0	0		0	8042.095345	2.680698448
9	0	0		0	8042.095345	2.680698448
10	8	84.41282		0	8126.508165	2.708836055

11	0	0		0	8126.508165	2.708836055
12	8	84.41282		0	8210.920985	2.736973662
13	0	0		0	8210.920985	2.736973662
14	0	0		0	8210.920985	2.736973662
15	23	242.6868575		0	8453.607843	2.817869281
16	0	0		0	8453.607843	2.817869281
17	0	0		0	8453.607843	2.817869281
18	0	0		0	8453.607843	2.817869281
19	12	126.61923		0	8580.227073	2.860075691
20	33	348.2028825	1000	0	7928.429955	2.642809985
21	0	0		0	7928.429955	2.642809985
22	36	379.85769		0	8308.287645	2.769429215
23	24	253.23846		0	8561.526105	2.853842035
24	79	833.5765975	1000	0	8395.102703	2.798367568
25	0	0		0	8395.102703	2.798367568
26	0	0		0	8395.102703	2.798367568
27	6	63.309615		0	8458.412318	2.819470773
28	26	274.341665		0	8732.753983	2.910917994
29	0	0		0	8732.753983	2.910917994
30	0	0		0	8732.753983	2.910917994
31	0	0		0	8732.753983	2.910917994
April				0		
1	0	0		18	8714.753983	2.904917994
2	86	907.437815	1000	0	8622.191798	2.874063933
3	0	0		0	8622.191798	2.874063933
4	30	316.548075		0	8938.739873	2.979579958
5	0	0		0	8938.739873	2.979579958
6	0	0		0	8938.739873	2.979579958
7	39	411.5124975	1000	0	8350.25237	2.783417457
8	4	42.20641		0	8392.45878	2.79748626
9	0	0		0	8392.45878	2.79748626
10	0	0		0	8392.45878	2.79748626
11	0	0		0	8392.45878	2.79748626
12	0	0		18	8374.45878	2.79148626
13	0	0		18	8356.45878	2.78548626
14	0	0		18	8338.45878	2.77948626
15	40	422.0641	1000	0	7760.52288	2.58684096
16	70	738.612175		0	8499.135055	2.833045018
17	89	939.0926225	1000	0	8438.227678	2.812742559
18	0	0		0	8438.227678	2.812742559
19	0	0		0	8438.227678	2.812742559
20	0	0		0	8438.227678	2.812742559
21	0	0		18	8420.227678	2.806742559
22	0	0		18	8402.227678	2.800742559
23	0	0		18	8384.227678	2.794742559
24	60	633.09615	1000	0	8017.323828	2.672441276
25	2	21.103205		0	8038.427033	2.679475678
26	0	0		0	8038.427033	2.679475678
27	0	0		0	8038.427033	2.679475678
28	0	0		0	8038.427033	2.679475678
29	0	0		18	8020.427033	2.673475678
30	0	0		18	8002.427033	2.667475678

Mei				162		
1	0	0		18	7984.427033	2.661475678
2	0	0		18	7966.427033	2.655475678
3	6	63.309615		0	8029.736648	2.676578883
4	0	0		0	8029.736648	2.676578883
5	0	0		0	8029.736648	2.676578883
6	0	0		0	8029.736648	2.676578883
7	0	0		18	8011.736648	2.670578883
8	0	0		18	7993.736648	2.664578883
9	0	0		18	7975.736648	2.658578883
10	0	0		18	7957.736648	2.652578883
11	0	0		18	7939.736648	2.646578883
12	0	0		18	7921.736648	2.640578883
13	0	0		18	7903.736648	2.634578883
14	0	0		18	7885.736648	2.628578883
15	0	0		18	7867.736648	2.622578883
16	0	0		18	7849.736648	2.616578883
17	0	0		18	7831.736648	2.610578883
18	0	0		18	7813.736648	2.604578883
19	0	0		18	7795.736648	2.598578883
20	0	0		18	7777.736648	2.592578883
21	0	0		18	7759.736648	2.586578883
22	0	0		18	7741.736648	2.580578883
23	0	0		18	7723.736648	2.574578883
24	0	0		18	7705.736648	2.568578883
25	0	0		18	7687.736648	2.562578883
26	23	242.6868575		0	7930.423505	2.643474502
27	0	0		0	7930.423505	2.643474502
28	0	0		0	7930.423505	2.643474502
29	0	0		0	7930.423505	2.643474502
30	0	0		18	7912.423505	2.637474502
31	0	0		18	7894.423505	2.631474502
Juni				414		
1	0	0		18	7876.423505	2.625474502
2	0	0		18	7858.423505	2.619474502
3	0	0		18	7840.423505	2.613474502
4	24	253.23846		0	8093.661965	2.697887322
5	0	0		0	8093.661965	2.697887322
6	0	0		0	8093.661965	2.697887322
7	6	63.309615		0	8156.97158	2.718990527
8	0	0		0	8156.97158	2.718990527
9	0	0		0	8156.97158	2.718990527
10	0	0		0	8156.97158	2.718990527
11	25	263.7900625		0	8420.761643	2.806920548
12	22	232.135255		0	8652.896898	2.884298966
13	0	0		0	8652.896898	2.884298966
14	11	116.0676275		0	8768.964525	2.922988175
15	0	0		0	8768.964525	2.922988175
16	0	0		0	8768.964525	2.922988175
17	0	0		0	8768.964525	2.922988175
18	0	0		18	8750.964525	2.916988175
19	0	0		18	8732.964525	2.910988175
20	0	0		18	8714.964525	2.904988175
21	0	0		18	8696.964525	2.898988175
22	0	0		18	8678.964525	2.892988175
23	0	0		18	8660.964525	2.886988175
24	4	42.20641		0	8703.170935	2.901056978
25	0	0		0	8703.170935	2.901056978
26	0	0		0	8703.170935	2.901056978
27	0	0		0	8703.170935	2.901056978
28	0	0		18	8685.170935	2.895056978
29	0	0		18	8667.170935	2.889056978
30	0	0		18	8649.170935	2.883056978
Juli				216		
1	0	0		18	8631.170935	2.877056978
2	0	0		18	8613.170935	2.871056978
3	0	0		18	8595.170935	2.865056978
4	0	0		18	8577.170935	2.859056978
5	0	0		18	8559.170935	2.853056978
6	0	0		18	8541.170935	2.847056978
7	0	0		18	8523.170935	2.841056978
8	0	0		18	8505.170935	2.835056978
9	0	0		18	8487.170935	2.829056978
10	0	0		18	8469.170935	2.823056978



11	0	0		18	8451.170935	2.817056978
12	22	232.135255		0	8683.30619	2.894435397
13	42	443.167305	1000	0	8126.473495	2.708824498
14	0	0		0	8126.473495	2.708824498
15	0	0		0	8126.473495	2.708824498
16	0	0		0	8126.473495	2.708824498
17	0	0		18	8108.473495	2.702824498
18	0	0		18	8090.473495	2.696824498
19	0	0		18	8072.473495	2.690824498
20	6	63.309615		0	8135.78311	2.711927703
21	0	0		0	8135.78311	2.711927703
22	0	0		0	8135.78311	2.711927703
23	0	0		0	8135.78311	2.711927703
24	0	0		18	8117.78311	2.705927703
25	0	0		18	8099.78311	2.699927703
26	0	0		18	8081.78311	2.693927703
27	0	0		18	8063.78311	2.687927703
28	0	0		18	8045.78311	2.681927703
29	0	0		18	8027.78311	2.675927703
30	0	0		18	8009.78311	2.669927703
31	0	0		18	7991.78311	2.663927703
Agustus				396		
1	0	0		18	7973.78311	2.657927703
2	0	0		18	7955.78311	2.651927703
3	0	0		18	7937.78311	2.645927703
4	0	0		18	7919.78311	2.639927703
5	0	0		18	7901.78311	2.633927703
6	0	0		18	7883.78311	2.627927703
7	0	0		18	7865.78311	2.621927703
8	0	0		18	7847.78311	2.615927703
9	0	0		18	7829.78311	2.609927703
10	0	0		18	7811.78311	2.603927703
11	0	0		18	7793.78311	2.597927703
12	0	0		18	7775.78311	2.591927703
13	0	0		18	7757.78311	2.585927703
14	0	0		18	7739.78311	2.579927703
15	0	0		18	7721.78311	2.573927703
16	0	0		18	7703.78311	2.567927703
17	0	0		18	7685.78311	2.561927703
18	0	0		18	7667.78311	2.555927703
19	0	0		18	7649.78311	2.549927703
20	0	0		18	7631.78311	2.543927703
21	0	0		18	7613.78311	2.537927703
22	0	0		18	7595.78311	2.531927703
23	0	0		18	7577.78311	2.525927703
24	0	0		18	7559.78311	2.519927703
25	0	0		18	7541.78311	2.513927703
26	0	0		18	7523.78311	2.507927703
27	0	0		18	7505.78311	2.501927703
28	0	0		18	7487.78311	2.495927703
29	0	0		18	7469.78311	2.489927703
30	0	0		18	7451.78311	2.483927703
31	0	0		18	7433.78311	2.477927703

September				558		
1	0	0		18	7415.78311	2.471927703
2	0	0		18	7397.78311	2.465927703
3	0	0		18	7379.78311	2.459927703
4	0	0		18	7361.78311	2.453927703
5	0	0		18	7343.78311	2.447927703
6	0	0		18	7325.78311	2.441927703
7	0	0		18	7307.78311	2.435927703
8	0	0		18	7289.78311	2.429927703
9	0	0		18	7271.78311	2.423927703
10	0	0		18	7253.78311	2.417927703
11	0	0		18	7235.78311	2.411927703
12	0	0		18	7217.78311	2.405927703
13	0	0		18	7199.78311	2.399927703
14	0	0		18	7181.78311	2.393927703
15	0	0		18	7163.78311	2.387927703
16	0	0		18	7145.78311	2.381927703
17	0	0		18	7127.78311	2.375927703
18	0	0		18	7109.78311	2.369927703
19	0	0		18	7091.78311	2.363927703
20	0	0		18	7073.78311	2.357927703
21	0	0		18	7055.78311	2.351927703
22	0	0		18	7037.78311	2.345927703
23	0	0		18	7019.78311	2.339927703
24	0	0		18	7001.78311	2.333927703
25	0	0		18	6983.78311	2.327927703
26	0	0		18	6965.78311	2.321927703
27	0	0		18	6947.78311	2.315927703
28	0	0		18	6929.78311	2.309927703
29	0	0		18	6911.78311	2.303927703
30	0	0		18	6893.78311	2.297927703
Oktober				540		
1	0	0		18	6875.78311	2.291927703
2	0	0		18	6857.78311	2.285927703
3	0	0		18	6839.78311	2.279927703
4	0	0		18	6821.78311	2.273927703
5	64	675.30256		0	7497.08567	2.499028557
6	10	105.516025		0	7602.601695	2.534200565
7	0	0		0	7602.601695	2.534200565
8	0	0		0	7602.601695	2.534200565
9	20	211.03205		0	7813.633745	2.604544582
10	2	21.103205		0	7834.73695	2.611578983
11	0	0		0	7834.73695	2.611578983
12	0	0		0	7834.73695	2.611578983
13	0	0		0	7834.73695	2.611578983
14	8	84.41282		0	7919.14977	2.63971659
15	0	0		0	7919.14977	2.63971659
16	0	0		0	7919.14977	2.63971659
17	0	0		0	7919.14977	2.63971659
18	0	0		18	7901.14977	2.63371659
19	0	0		18	7883.14977	2.62771659
20	0	0		18	7865.14977	2.62171659
21	2	21.103205		0	7886.252975	2.628750992
22	0	0		0	7886.252975	2.628750992
23	0	0		0	7886.252975	2.628750992
24	0	0		0	7886.252975	2.628750992
25	37	390.4092925		0	8276.662268	2.758887423
26	0	0		0	8276.662268	2.758887423
27	0	0		0	8276.662268	2.758887423
28	0	0		0	8276.662268	2.758887423
29	0	0		18	8258.662268	2.752887423
30	0	0		18	8240.662268	2.746887423
31	0	0		18	8222.662268	2.740887423
November				180		
1	0	0		18	8204.662268	2.734887423
2	0	0		18	8186.662268	2.728887423
3	0	0		18	8168.662268	2.722887423
4	0	0		18	8150.662268	2.716887423
5	27	284.8932675		0	8435.555535	2.811851845
6	0	0		0	8435.555535	2.811851845
7	17	179.3772425		0	8614.932778	2.871644259
8	0	0		0	8614.932778	2.871644259
9	0	0		0	8614.932778	2.871644259
10	42	443.167305	1000	0	8058.100083	2.686033361

11	0	0		0	8058.100083	2.686033361
12	0	0		0	8058.100083	2.686033361
13	0	0		0	8058.100083	2.686033361
14	0	0		18	8040.100083	2.680033361
15	13	137.1708325		0	8177.270915	2.725756972
16	8	84.41282		0	8261.683735	2.753894578
17	0	0		0	8261.683735	2.753894578
18	38	400.960895	1000	0	7662.64463	2.554214877
19	0	0		0	7662.64463	2.554214877
20	3	31.6548075		0	7694.299438	2.564766479
21	0	0		0	7694.299438	2.564766479
22	0	0		0	7694.299438	2.564766479
23	0	0		0	7694.299438	2.564766479
24	8	84.41282		0	7778.712258	2.592904086
25	40	422.0641		0	8200.776358	2.733592119
26	0	0		0	8200.776358	2.733592119
27	29	305.9964725		0	8506.77283	2.835590943
28	5	52.7580125		0	8559.530843	2.853176948
29	0	0		0	8559.530843	2.853176948
30	3	31.6548075		0	8591.18565	2.86372855
Desember				90		
1	0	0		0	8591.18565	2.86372855
2	0	0		0	8591.18565	2.86372855
3	0	0		0	8591.18565	2.86372855
4	0	0		18	8573.18565	2.85772855
5	27	284.8932675	1000	0	7858.078918	2.619359639
6	0	0		0	7858.078918	2.619359639
7	17	179.3772425		0	8037.45616	2.679152053
8	0	0		0	8037.45616	2.679152053
9	0	0		0	8037.45616	2.679152053
10	42	443.167305		0	8480.623465	2.826874488
11	0	0		0	8480.623465	2.826874488
12	0	0		0	8480.623465	2.826874488
13	0	0		0	8480.623465	2.826874488
14	0	0		18	8462.623465	2.820874488
15	13	137.1708325		0	8599.794298	2.866598099
16	8	84.41282		0	8684.207118	2.894735706
17	0	0		0	8684.207118	2.894735706
18	38	400.960895	1000	0	8085.168013	2.695056004
19	0	0		0	8085.168013	2.695056004
20	3	31.6548075	1000	0	7116.82282	2.372274273
21	0	0		0	7116.82282	2.372274273
22	0	0		0	7116.82282	2.372274273
23	0	0		0	7116.82282	2.372274273
24	8	84.41282		0	7201.23564	2.40041188
25	40	422.0641		0	7623.29974	2.541099913
26	0	0		0	7623.29974	2.541099913
27	29	305.9964725		0	7929.296213	2.643098738
28	5	52.7580125		0	7982.054225	2.660684742
29	0	0		0	7982.054225	2.660684742
30	3	31.6548075	1000	0	7013.709033	2.337903011
31	31	327.0996775		0	7340.80871	2.446936237

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	0	0		18	4300.401155	1.433467052
2	0	0		18	4282.401155	1.427467052
3	0	0		18	4264.401155	1.421467052
4	0	0		18	4246.401155	1.415467052
5	0	0		18	4228.401155	1.409467052
6	0	0		18	4210.401155	1.403467052
7	0	0		18	4192.401155	1.397467052
8	0	0		18	4174.401155	1.391467052
9	0	0		18	4156.401155	1.385467052
10	0	0		18	4138.401155	1.379467052
11	0	0		18	4120.401155	1.373467052
12	0	0		18	4102.401155	1.367467052
13	0	0		18	4084.401155	1.361467052
14	0	0		18	4066.401155	1.355467052
15	30	417.865005		0	4484.26616	1.494755387
16	0	0		0	4484.26616	1.494755387
17	0	0		0	4484.26616	1.494755387
18	0	0		0	4484.26616	1.494755387
19	15	208.932503		0	4693.198663	1.564399554
20	0	0		0	4693.198663	1.564399554
21	0	0		0	4693.198663	1.564399554
22	0	0		0	4693.198663	1.564399554
23	55	766.085843		0	5459.284505	1.819761502
24	75	1044.66251		0	6503.947018	2.167982339
25	0	0		0	6503.947018	2.167982339
26	0	0		0	6503.947018	2.167982339
27	0	0		0	6503.947018	2.167982339
28	0	0		18	6485.947018	2.161982339
29	0	0		18	6467.947018	2.155982339
30	0	0		18	6449.947018	2.149982339
31	67	933.231845		0	7383.178862	2.461059621
Februari						
1	0	0		0	7383.178862	2.461059621
2	0	0		0	7383.178862	2.461059621
3	38	529.295673		0	7912.474535	2.637491512
4	24	334.292004		0	8246.766539	2.74892218
5	16	222.861336		0	8469.627875	2.823209292
6	31	431.793839	1500	0	7401.421714	2.467140571
7	0	0		0	7401.421714	2.467140571
8	0	0		0	7401.421714	2.467140571
9	0	0		0	7401.421714	2.467140571
10	15	208.932503		0	7610.354216	2.536784739
11	0	0		0	7610.354216	2.536784739
12	50	696.441675		0	8306.795891	2.768931964
13	0	0		0	8306.795891	2.768931964
14	0	0		0	8306.795891	2.768931964
15	0	0		0	8306.795891	2.768931964
16	0	0		18	8288.795891	2.762931964
17	0	0		18	8270.795891	2.756931964
18	0	0		18	8252.795891	2.750931964
19	0	0		18	8234.795891	2.744931964
20	0	0		18	8216.795891	2.738931964
21	25	348.220838		0	8565.016729	2.855005576
22	0	0		0	8565.016729	2.855005576
23	0	0		0	8565.016729	2.855005576
24	20	278.57667		0	8843.593399	2.947864466
25	0	0		0	8843.593399	2.947864466
26	23	320.363171	1500	0	7663.956569	2.55465219
27	30	417.865005	1500	0	6581.821574	2.193940525
28	45	626.797508		0	7208.619082	2.402873027
Maret						
1	25	348.220838	1500	0	6056.839919	2.01894664
2	10	139.288335		0	6196.128254	2.065376085
3	0	0		0	6196.128254	2.065376085
4	0	0		0	6196.128254	2.065376085
5	0	0		0	6196.128254	2.065376085
6	0	0		18	6178.128254	2.059376085
7	40	557.15334		0	6735.281594	2.245093865
8	55	766.085843	1500	0	6001.367437	2.000455812
9	0	0		0	6001.367437	2.000455812

10	0	0		0	6001.367437	2.000455812
11	0	0		0	6001.367437	2.000455812
12	0	0		18	5983.367437	1.994455812
13	0	0		18	5965.367437	1.988455812
14	20	278.57667		0	6243.944107	2.081314702
15	0	0		0	6243.944107	2.081314702
16	0	0		0	6243.944107	2.081314702
17	0	0		0	6243.944107	2.081314702
18	0	0		18	6225.944107	2.075314702
19	0	0		18	6207.944107	2.069314702
20	0	0		18	6189.944107	2.063314702
21	39	543.224507		0	6733.168613	2.244389538
22	0	0		0	6733.168613	2.244389538
23	0	0		0	6733.168613	2.244389538
24	0	0		0	6733.168613	2.244389538
25	0	0		18	6715.168613	2.238389538
26	0	0		18	6697.168613	2.232389538
27	0	0		18	6679.168613	2.226389538
28	0	0		18	6661.168613	2.220389538
29	0	0		18	6643.168613	2.214389538
30	20	278.57667		18	6903.745283	2.301248428
31	0	0		18	6885.745283	2.295248428
April						
1	0	0		18	6867.745283	2.289248428
2	0	0		18	6849.745283	2.283248428
3	0	0		18	6831.745283	2.277248428
4	0	0		18	6813.745283	2.271248428
5	0	0		18	6795.745283	2.265248428
6	0	0		18	6777.745283	2.259248428
7	0	0		18	6759.745283	2.253248428
8	0	0		18	6741.745283	2.247248428
9	7	97.5018345		0	6839.247118	2.279749039
10	0	0		0	6839.247118	2.279749039
11	0	0		0	6839.247118	2.279749039
12	0	0		0	6839.247118	2.279749039
13	0	0		18	6821.247118	2.273749039
14	0	0		18	6803.247118	2.267749039
15	0	0		18	6785.247118	2.261749039
16	0	0		18	6767.247118	2.255749039
17	0	0		18	6749.247118	2.249749039
18	0	0		18	6731.247118	2.243749039
19	0	0		18	6713.247118	2.237749039
20	0	0		18	6695.247118	2.231749039
21	0	0		18	6677.247118	2.225749039
22	0	0		18	6659.247118	2.219749039
23	20	278.57667		0	6937.823788	2.312607929
24	0	0		0	6937.823788	2.312607929
25	0	0		0	6937.823788	2.312607929
26	0	0		0	6937.823788	2.312607929
27	0	0		18	6919.823788	2.306607929
28	0	0		18	6901.823788	2.300607929
29	0	0		18	6883.823788	2.294607929
30	0	0		18	6865.823788	2.288607929

Mei						
1	0	0		18	6847.823788	2.282607929
2	0	0		18	6829.823788	2.276607929
3	0	0		18	6811.823788	2.270607929
4	0	0		18	6793.823788	2.264607929
5	0	0		18	6775.823788	2.258607929
6	0	0		18	6757.823788	2.252607929
7	0	0		18	6739.823788	2.246607929
8	0	0		18	6721.823788	2.240607929
9	0	0		18	6703.823788	2.234607929
10	0	0		18	6685.823788	2.228607929
11	0	0		18	6667.823788	2.222607929
12	0	0		18	6649.823788	2.216607929
13	0	0		18	6631.823788	2.210607929
14	0	0		18	6613.823788	2.204607929
15	0	0		18	6595.823788	2.198607929
16	0	0		18	6577.823788	2.192607929
17	0	0		18	6559.823788	2.186607929
18	0	0		18	6541.823788	2.180607929
19	0	0		18	6523.823788	2.174607929
20	0	0		18	6505.823788	2.168607929
21	0	0		18	6487.823788	2.162607929
22	17	236.79017		18	6706.613957	2.235537986
23	0	0		18	6688.613957	2.229537986
24	0	0		18	6670.613957	2.223537986
25	0	0		18	6652.613957	2.217537986
26	0	0		18	6634.613957	2.211537986
27	0	0		18	6616.613957	2.205537986
28	0	0		18	6598.613957	2.199537986
29	0	0		18	6580.613957	2.193537986
30	0	0		18	6562.613957	2.187537986
31	0	0		18	6544.613957	2.181537986
Juni						
1	0	0		18	6526.613957	2.175537986
2	0	0		18	6508.613957	2.169537986
3	0	0		18	6490.613957	2.163537986
4	0	0		18	6472.613957	2.157537986
5	0	0		18	6454.613957	2.151537986
6	0	0		18	6436.613957	2.145537986
7	0	0		18	6418.613957	2.139537986
8	0	0		18	6400.613957	2.133537986
9	0	0		18	6382.613957	2.127537986
10	0	0		18	6364.613957	2.121537986
11	0	0		18	6346.613957	2.115537986
12	0	0		18	6328.613957	2.109537986
13	0	0		18	6310.613957	2.103537986
14	0	0		18	6292.613957	2.097537986
15	0	0		18	6274.613957	2.091537986
16	0	0		18	6256.613957	2.085537986
17	0	0		18	6238.613957	2.079537986
18	0	0		18	6220.613957	2.073537986
19	0	0		18	6202.613957	2.067537986
20	0	0		18	6184.613957	2.061537986
21	0	0		18	6166.613957	2.055537986
22	0	0		18	6148.613957	2.049537986
23	0	0		18	6130.613957	2.043537986
24	0	0		18	6112.613957	2.037537986
25	0	0		18	6094.613957	2.031537986
26	0	0		18	6076.613957	2.025537986
27	0	0		18	6058.613957	2.019537986
28	0	0		18	6040.613957	2.013537986
29	15	208.932503		0	6249.54646	2.083182153
30	0	0		0	6249.54646	2.083182153
Juli						
1	0	0		0	6249.54646	2.083182153
2	0	0		0	6249.54646	2.083182153
3	0	0		18	6231.54646	2.077182153
4	0	0		18	6213.54646	2.071182153
5	0	0		18	6195.54646	2.065182153
6	0	0		18	6177.54646	2.059182153
7	0	0		18	6159.54646	2.053182153
8	0	0		18	6141.54646	2.047182153
9	0	0		18	6123.54646	2.041182153
10	0	0		18	6105.54646	2.035182153

11	0	0		18	6087.54646	2.029182153
12	0	0		18	6069.54646	2.023182153
13	0	0		18	6051.54646	2.017182153
14	0	0		18	6033.54646	2.011182153
15	0	0		18	6015.54646	2.005182153
16	0	0		18	5997.54646	1.999182153
17	0	0		18	5979.54646	1.993182153
18	0	0		18	5961.54646	1.987182153
19	0	0		18	5943.54646	1.981182153
20	0	0		18	5925.54646	1.975182153
21	0	0		18	5907.54646	1.969182153
22	0	0		18	5889.54646	1.963182153
23	0	0		18	5871.54646	1.957182153
24	0	0		18	5853.54646	1.951182153
25	0	0		18	5835.54646	1.945182153
26	0	0		18	5817.54646	1.939182153
27	0	0		18	5799.54646	1.933182153
28	0	0		18	5781.54646	1.927182153
29	0	0		18	5763.54646	1.921182153
30	0	0		18	5745.54646	1.915182153
31	0	0		18	5727.54646	1.909182153
Agustus						
1	0	0		18	5709.54646	1.903182153
2	0	0		18	5691.54646	1.897182153
3	0	0		18	5673.54646	1.891182153
4	0	0		18	5655.54646	1.885182153
5	0	0		18	5637.54646	1.879182153
6	0	0		18	5619.54646	1.873182153
7	0	0		18	5601.54646	1.867182153
8	0	0		18	5583.54646	1.861182153
9	0	0		18	5565.54646	1.855182153
10	0	0		18	5547.54646	1.849182153
11	0	0		18	5529.54646	1.843182153
12	0	0		18	5511.54646	1.837182153
13	0	0		18	5493.54646	1.831182153
14	0	0		18	5475.54646	1.825182153
15	0	0		18	5457.54646	1.819182153
16	0	0		18	5439.54646	1.813182153
17	0	0		18	5421.54646	1.807182153
18	0	0		18	5403.54646	1.801182153
19	0	0		18	5385.54646	1.795182153
20	0	0		18	5367.54646	1.789182153
21	0	0		18	5349.54646	1.783182153
22	0	0		18	5331.54646	1.777182153
23	0	0		18	5313.54646	1.771182153
24	0	0		18	5295.54646	1.765182153
25	0	0		18	5277.54646	1.759182153
26	0	0		18	5259.54646	1.753182153
27	0	0		18	5241.54646	1.747182153
28	0	0		18	5223.54646	1.741182153
29	0	0		18	5205.54646	1.735182153
30	0	0		18	5187.54646	1.729182153
31	0	0		18	5169.54646	1.723182153

September						
1	0	0		18	5151.54646	1.717182153
2	0	0		18	5133.54646	1.711182153
3	0	0		18	5115.54646	1.705182153
4	0	0		18	5097.54646	1.699182153
5	0	0		18	5079.54646	1.693182153
6	0	0		18	5061.54646	1.687182153
7	0	0		18	5043.54646	1.681182153
8	0	0		18	5025.54646	1.675182153
9	0	0		18	5007.54646	1.669182153
10	0	0		18	4989.54646	1.663182153
11	0	0		18	4971.54646	1.657182153
12	0	0		18	4953.54646	1.651182153
13	0	0		18	4935.54646	1.645182153
14	0	0		18	4917.54646	1.639182153
15	0	0		18	4899.54646	1.633182153
16	0	0		18	4881.54646	1.627182153
17	0	0		18	4863.54646	1.621182153
18	0	0		18	4845.54646	1.615182153
19	0	0		18	4827.54646	1.609182153
20	0	0		18	4809.54646	1.603182153
21	0	0		18	4791.54646	1.597182153
22	0	0		18	4773.54646	1.591182153
23	0	0		18	4755.54646	1.585182153
24	0	0		18	4737.54646	1.579182153
25	0	0		18	4719.54646	1.573182153
26	0	0		18	4701.54646	1.567182153
27	0	0		18	4683.54646	1.561182153
28	0	0		18	4665.54646	1.555182153
29	0	0		18	4647.54646	1.549182153
30	0	0		18	4629.54646	1.543182153
Oktober						
1	0	0		18	4611.54646	1.537182153
2	0	0		18	4593.54646	1.531182153
3	0	0		18	4575.54646	1.525182153
4	0	0		18	4557.54646	1.519182153
5	0	0		18	4539.54646	1.513182153
6	0	0		18	4521.54646	1.507182153
7	0	0		18	4503.54646	1.501182153
8	0	0		18	4485.54646	1.495182153
9	0	0		18	4467.54646	1.489182153
10	0	0		18	4449.54646	1.483182153
11	0	0		18	4431.54646	1.477182153
12	0	0		18	4413.54646	1.471182153
13	0	0		18	4395.54646	1.465182153
14	0	0		18	4377.54646	1.459182153
15	0	0		18	4359.54646	1.453182153
16	0	0		18	4341.54646	1.447182153
17	0	0		18	4323.54646	1.441182153
18	0	0		18	4305.54646	1.435182153
19	0	0		18	4287.54646	1.429182153
20	0	0		18	4269.54646	1.423182153
21	0	0		18	4251.54646	1.417182153
22	0	0		18	4233.54646	1.411182153
23	0	0		18	4215.54646	1.405182153
24	0	0		18	4197.54646	1.399182153
25	0	0		18	4179.54646	1.393182153
26	0	0		18	4161.54646	1.387182153
27	0	0		18	4143.54646	1.381182153
28	0	0		18	4125.54646	1.375182153
29	0	0		18	4107.54646	1.369182153
30	0	0		18	4089.54646	1.363182153
31	0	0		18	4071.54646	1.357182153
November						
1	8	111.430668		0	4182.977128	1.394325709
2	5	69.6441675		0	4252.621295	1.417540432
3	11	153.217169		0	4405.838464	1.468612821
4	15	208.932503		0	4614.770966	1.538256989
5	0	0		0	4614.770966	1.538256989
6	3	41.7865005		0	4656.557467	1.552185822
7	2	27.857667		0	4684.415134	1.561471711
8	4	55.715334		0	4740.130468	1.580043489
9	0	0		0	4740.130468	1.580043489
10	0	0		0	4740.130468	1.580043489



11	0	0		0	4740.130468	1.580043489
12	0	0		18	4722.130468	1.574043489
13	0	0		18	4704.130468	1.568043489
14	0	0		18	4686.130468	1.562043489
15	0	0		18	4668.130468	1.556043489
16	0	0		18	4650.130468	1.550043489
17	0	0		18	4632.130468	1.544043489
18	0	0		18	4614.130468	1.538043489
19	0	0		18	4596.130468	1.532043489
20	0	0		18	4578.130468	1.526043489
21	0	0		18	4560.130468	1.520043489
22	0	0		18	4542.130468	1.514043489
23	1	13.9288335		18	4538.059301	1.512686434
24	0	0		18	4520.059301	1.506686434
25	0	0		18	4502.059301	1.500686434
26	0	0		18	4484.059301	1.494686434
27	0	0		18	4466.059301	1.488686434
28	0	0		18	4448.059301	1.482686434
29	84	1170.02201		0	5618.081315	1.872693772
30	0	0		0	5618.081315	1.872693772
Desember						
1	0	0		0	5618.081315	1.872693772
2	0	0		0	5618.081315	1.872693772
3	0	0		18	5600.081315	1.866693772
4	10	139.288335		0	5739.36965	1.913123217
5	0	0		0	5739.36965	1.913123217
6	0	0		0	5739.36965	1.913123217
7	0	0		0	5739.36965	1.913123217
8	0	0		18	5721.36965	1.907123217
9	0	0		18	5703.36965	1.901123217
10	0	0		18	5685.36965	1.895123217
11	0	0		18	5667.36965	1.889123217
12	0	0		18	5649.36965	1.883123217
13	0	0		18	5631.36965	1.877123217
14	0	0		18	5613.36965	1.871123217
15	0	0		18	5595.36965	1.865123217
16	0	0		18	5577.36965	1.859123217
17	127	1768.96185		0	7346.331505	2.448777168
18	50	696.441675	1500	0	6542.77318	2.180924393
19	34	473.580339		0	7016.353519	2.338784506
20	0	0		0	7016.353519	2.338784506
21	64	891.445344	1500	0	6407.798863	2.135932954
22	5	69.6441675		0	6477.44303	2.159147677
23	0	0		0	6477.44303	2.159147677
24	10	139.288335		0	6616.731365	2.205577122
25	25	348.220838		0	6964.952203	2.321650734
26	63	877.516511	1500	0	6342.468713	2.114156238
27	0	0		0	6342.468713	2.114156238
28	0	0		0	6342.468713	2.114156238
29	0	0		0	6342.468713	2.114156238
30	0	0		18	6324.468713	2.108156238
31	0	0		18	6306.468713	2.102156238

**TAMAN ALUMNI ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	<b>Vol. I(m3)</b>	<b>Vol O 1</b>	<b>Vol O(m3)</b>	<b>DS(m3)</b>	<b>tinggi air (m)</b>
1	15	158.2740375	1000	0	6499.082748	2.166360916
2	29	305.9964725		0	6805.07922	2.26835974
3	0	0		0	6805.07922	2.26835974
4	36	379.85769		0	7184.93691	2.39497897
5	5	52.7580125		0	7237.694923	2.412564974
6	0	0		0	7237.694923	2.412564974
7	23	242.6868575		0	7480.38178	2.493460593
8	7	73.8612175		0	7554.242998	2.518080999
9	16	168.82564	1000	0	6723.068638	2.241022879
10	0	0		0	6723.068638	2.241022879
11	13	137.1708325		0	6860.23947	2.28674649
12	0	0		0	6860.23947	2.28674649
13	7	73.8612175		0	6934.100688	2.311366896
14	0	0		0	6934.100688	2.311366896
15	44	464.27051		0	7398.371198	2.466123733
16	0	0		0	7398.371198	2.466123733
17	23	242.6868575		0	7641.058055	2.547019352
18	13	137.1708325		0	7778.228888	2.592742963
19	0	0		0	7778.228888	2.592742963
20	0	0		0	7778.228888	2.592742963
21	6	63.309615		0	7841.538503	2.613846168
22	0	0		0	7841.538503	2.613846168
23	41	432.6157025	1000	0	7274.154205	2.424718068
24	0	0		0	7274.154205	2.424718068
25	2	21.103205		0	7295.25741	2.43175247
26	0	0		0	7295.25741	2.43175247
27	8	84.41282		0	7379.67023	2.459890077
28	11	116.0676275		0	7495.737858	2.498579286
29	36	379.85769	1000	0	6875.595548	2.291865183
30	123	1297.847108	1000	0	7173.442655	2.391147552
31	0	0		0	7173.442655	2.391147552
<b>Februari</b>				<b>0</b>		
1	0	0		0	7173.442655	2.391147552
2	0	0		0	7173.442655	2.391147552
3	15	158.2740375		0	7331.716693	2.443905564
4	0	0		0	7331.716693	2.443905564
5	0	0		0	7331.716693	2.443905564
6	3	31.6548075		0	7363.3715	2.454457167
7	0	0		0	7363.3715	2.454457167
8	2	21.103205		0	7384.474705	2.461491568
9	0	0		0	7384.474705	2.461491568
10	12	126.61923	1000	0	6511.093935	2.170364645
11	0	0		0	6511.093935	2.170364645
12	0	0		0	6511.093935	2.170364645
13	21	221.5836525		0	6732.677588	2.244225863
14	0	0		0	6732.677588	2.244225863
15	10	105.516025		0	6838.193613	2.279397871
16	8	84.41282		0	6922.606433	2.307535478
17	0	0		0	6922.606433	2.307535478
18	0	0		0	6922.606433	2.307535478
19	0	0		0	6922.606433	2.307535478
20	4	42.20641		0	6964.812843	2.321604281
21	0	0		0	6964.812843	2.321604281
22	9	94.9644225		0	7059.777265	2.353259088
23	17	179.3772425		0	7239.154508	2.413051503
24	0	0		0	7239.154508	2.413051503
25	3	31.6548075		0	7270.809315	2.423603105
26	6	63.309615		0	7334.11893	2.44470631
27	4	42.20641		0	7376.32534	2.458775113
28	1	10.5516025		0	7386.876943	2.462292314
<b>Maret</b>				<b>0</b>		
1	2	21.103205		0	7407.980148	2.469326716
2	0	0		0	7407.980148	2.469326716
3	0	0		0	7407.980148	2.469326716
4	0	0		0	7407.980148	2.469326716
5	0	0		18	7389.980148	2.463326716
6	19	200.4804475		0	7590.460595	2.530153532
7	0	0		0	7590.460595	2.530153532
8	30	316.548075	1000	0	6907.00867	2.302336223
9	0	0		0	6907.00867	2.302336223
10	42	443.167305		0	7350.175975	2.450058658

11	1	10.5516025		0	7360.727578	2.453575859
12	0	0		0	7360.727578	2.453575859
13	0	0		0	7360.727578	2.453575859
14	0	0		0	7360.727578	2.453575859
15	0	0		18	7342.727578	2.447575859
16	0	0		18	7324.727578	2.441575859
17	0	0		18	7306.727578	2.435575859
18	0	0		18	7288.727578	2.429575859
19	0	0		18	7270.727578	2.423575859
20	0	0		18	7252.727578	2.417575859
21	0	0		18	7234.727578	2.411575859
22	0	0		18	7216.727578	2.405575859
23	0	0		18	7198.727578	2.399575859
24	0	0		18	7180.727578	2.393575859
25	2	21.103205		0	7201.830783	2.400610261
26	9	94.9644225		0	7296.795205	2.432265068
27	5	52.7580125		0	7349.553218	2.449851073
28	2	21.103205		0	7370.656423	2.456885474
29	7	73.8612175		0	7444.51764	2.48150588
30	10	105.516025		0	7550.033665	2.516677888
31	2	21.103205		0	7571.13687	2.52371229
April				198		
1	6	63.309615		0	7634.446485	2.544815495
2	2	21.103205		0	7655.54969	2.551849897
3	3	31.6548075		0	7687.204498	2.562401499
4	0	0		0	7687.204498	2.562401499
5	0	0		0	7687.204498	2.562401499
6	0	0		0	7687.204498	2.562401499
7	0	0		18	7669.204498	2.556401499
8	0	0		18	7651.204498	2.550401499
9	0	0		18	7633.204498	2.544401499
10	0	0		18	7615.204498	2.538401499
11	0	0		18	7597.204498	2.532401499
12	0	0		18	7579.204498	2.526401499
13	0	0		18	7561.204498	2.520401499
14	0	0		18	7543.204498	2.514401499
15	65	685.8541625	1000	0	7229.05866	2.40968622
16	10	105.516025		0	7334.574685	2.444858228
17	10	105.516025		0	7440.09071	2.480030237
18	1	10.5516025		0	7450.642313	2.483547438
19	7	73.8612175		0	7524.50353	2.508167843
20	4	42.20641		0	7566.70994	2.522236647
21	0	0		0	7566.70994	2.522236647
22	0	0		0	7566.70994	2.522236647
23	0	0		0	7566.70994	2.522236647
24	0	0		18	7548.70994	2.516236647
25	27	284.8932675		0	7833.603208	2.611201069
26	0	0		0	7833.603208	2.611201069
27	0	0		0	7833.603208	2.611201069
28	0	0		0	7833.603208	2.611201069
29	0	0		18	7815.603208	2.605201069
30	0	0		18	7797.603208	2.599201069

Mei				198		
1	0	0		18	7779.603208	2.593201069
2	1	10.5516025		0	7790.15481	2.59671827
3	0	0		0	7790.15481	2.59671827
4	0	0		0	7790.15481	2.59671827
5	0	0		0	7790.15481	2.59671827
6	0	0		18	7772.15481	2.59071827
7	0	0		18	7754.15481	2.58471827
8	0	0		18	7736.15481	2.57871827
9	5	52.7580125		0	7788.912823	2.596304274
10	5	52.7580125		0	7841.670835	2.613890278
11	32	337.65128	1000	0	7179.322115	2.393107372
12	0	0		0	7179.322115	2.393107372
13	1	10.5516025		0	7189.873718	2.396624573
14	0	0		0	7189.873718	2.396624573
15	0	0		0	7189.873718	2.396624573
16	0	0		0	7189.873718	2.396624573
17	0	0		18	7171.873718	2.390624573
18	0	0		18	7153.873718	2.384624573
19	0	0		18	7135.873718	2.378624573
20	0	0		18	7117.873718	2.372624573
21	0	0		18	7099.873718	2.366624573
22	0	0		18	7081.873718	2.360624573
23	9	94.9644225		0	7176.83814	2.39227938
24	0	0		0	7176.83814	2.39227938
25	0	0		0	7176.83814	2.39227938
26	0	0		0	7176.83814	2.39227938
27	0	0		18	7158.83814	2.38627938
28	0	0		18	7140.83814	2.38027938
29	32	337.65128	1000	0	6478.48942	2.159496473
30	0	0		0	6478.48942	2.159496473
31	0	0		0	6478.48942	2.159496473
Juni				216		
1	0	0		0	6478.48942	2.159496473
2	0	0		18	6460.48942	2.153496473
3	0	0		18	6442.48942	2.147496473
4	0	0		18	6424.48942	2.141496473
5	0	0		18	6406.48942	2.135496473
6	0	0		18	6388.48942	2.129496473
7	0	0		18	6370.48942	2.123496473
8	0	0		18	6352.48942	2.117496473
9	0	0		18	6334.48942	2.111496473
10	0	0		18	6316.48942	2.105496473
11	0	0		18	6298.48942	2.099496473
12	0	0		18	6280.48942	2.093496473
13	0	0		18	6262.48942	2.087496473
14	0	0		18	6244.48942	2.081496473
15	0	0		18	6226.48942	2.075496473
16	0	0		18	6208.48942	2.069496473
17	0	0		18	6190.48942	2.063496473
18	0	0		18	6172.48942	2.057496473
19	0	0		18	6154.48942	2.051496473
20	0	0		18	6136.48942	2.045496473
21	0	0		18	6118.48942	2.039496473
22	0	0		18	6100.48942	2.033496473
23	0	0		18	6082.48942	2.027496473
24	0	0		18	6064.48942	2.021496473
25	0	0		18	6046.48942	2.015496473
26	0	0		18	6028.48942	2.009496473
27	0	0		18	6010.48942	2.003496473
28	0	0		18	5992.48942	1.997496473
29	0	0		18	5974.48942	1.991496473
30	0	0		18	5956.48942	1.985496473
Juli				522		
1	0	0		18	5938.48942	1.979496473
2	0	0		18	5920.48942	1.973496473
3	0	0		18	5902.48942	1.967496473
4	0	0		18	5884.48942	1.961496473
5	0	0		18	5866.48942	1.955496473
6	0	0		18	5848.48942	1.949496473
7	0	0		18	5830.48942	1.943496473
8	0	0		18	5812.48942	1.937496473
9	0	0		18	5794.48942	1.931496473
10	0	0		18	5776.48942	1.925496473

11	0	0		18	5758.48942	1.919496473
12	0	0		18	5740.48942	1.913496473
13	0	0		18	5722.48942	1.907496473
14	0	0		18	5704.48942	1.901496473
15	0	0		18	5686.48942	1.895496473
16	0	0		18	5668.48942	1.889496473
17	0	0		18	5650.48942	1.883496473
18	2	21.103205		18	5653.592625	1.884530875
19	0	0		18	5635.592625	1.878530875
20	0	0		18	5617.592625	1.872530875
21	0	0		18	5599.592625	1.866530875
22	0	0		18	5581.592625	1.860530875
23	0	0		18	5563.592625	1.854530875
24	0	0		18	5545.592625	1.848530875
25	0	0		18	5527.592625	1.842530875
26	0	0		18	5509.592625	1.836530875
27	0	0		18	5491.592625	1.830530875
28	0	0		18	5473.592625	1.824530875
29	0	0		18	5455.592625	1.818530875
30	0	0		18	5437.592625	1.812530875
31	0	0		18	5419.592625	1.806530875
Agustus				558		
1	0	0		18	5401.592625	1.800530875
2	0	0		18	5383.592625	1.794530875
3	0	0		18	5365.592625	1.788530875
4	0	0		18	5347.592625	1.782530875
5	0	0		18	5329.592625	1.776530875
6	0	0		18	5311.592625	1.770530875
7	0	0		18	5293.592625	1.764530875
8	0	0		18	5275.592625	1.758530875
9	0	0		18	5257.592625	1.752530875
10	0	0		18	5239.592625	1.746530875
11	0	0		18	5221.592625	1.740530875
12	0	0		18	5203.592625	1.734530875
13	0	0		18	5185.592625	1.728530875
14	0	0		18	5167.592625	1.722530875
15	0	0		18	5149.592625	1.716530875
16	0	0		18	5131.592625	1.710530875
17	0	0		18	5113.592625	1.704530875
18	0	0		18	5095.592625	1.698530875
19	0	0		18	5077.592625	1.692530875
20	0	0		18	5059.592625	1.686530875
21	0	0		18	5041.592625	1.680530875
22	0	0		18	5023.592625	1.674530875
23	0	0		18	5005.592625	1.668530875
24	0	0		18	4987.592625	1.662530875
25	0	0		18	4969.592625	1.656530875
26	0	0		18	4951.592625	1.650530875
27	0	0		18	4933.592625	1.644530875
28	0	0		18	4915.592625	1.638530875
29	0	0		18	4897.592625	1.632530875
30	0	0		18	4879.592625	1.626530875
31	0	0		18	4861.592625	1.620530875

September				558		
1	0	0		18	4843.592625	1.614530875
2	0	0		18	4825.592625	1.608530875
3	0	0		18	4807.592625	1.602530875
4	0	0		18	4789.592625	1.596530875
5	0	0		18	4771.592625	1.590530875
6	0	0		18	4753.592625	1.584530875
7	0	0		18	4735.592625	1.578530875
8	0	0		18	4717.592625	1.572530875
9	0	0		18	4699.592625	1.566530875
10	0	0		18	4681.592625	1.560530875
11	0	0		18	4663.592625	1.554530875
12	0	0		18	4645.592625	1.548530875
13	0	0		18	4627.592625	1.542530875
14	0	0		18	4609.592625	1.536530875
15	0	0		18	4591.592625	1.530530875
16	0	0		18	4573.592625	1.524530875
17	0	0		18	4555.592625	1.518530875
18	0	0		18	4537.592625	1.512530875
19	0	0		18	4519.592625	1.506530875
20	0	0		18	4501.592625	1.500530875
21	0	0		18	4483.592625	1.494530875
22	0	0		18	4465.592625	1.488530875
23	0	0		18	4447.592625	1.482530875
24	0	0		18	4429.592625	1.476530875
25	0	0		18	4411.592625	1.470530875
26	0	0		18	4393.592625	1.464530875
27	0	0		18	4375.592625	1.458530875
28	0	0		18	4357.592625	1.452530875
29	0	0		18	4339.592625	1.446530875
30	0	0		18	4321.592625	1.440530875
Oktober				540		
1	0	0		18	4303.592625	1.434530875
2	0	0		18	4285.592625	1.428530875
3	0	0		18	4267.592625	1.422530875
4	0	0		18	4249.592625	1.416530875
5	0	0		18	4231.592625	1.410530875
6	0	0		18	4213.592625	1.404530875
7	0	0		18	4195.592625	1.398530875
8	0	0		18	4177.592625	1.392530875
9	0	0		18	4159.592625	1.386530875
10	0	0		18	4141.592625	1.380530875
11	0	0		18	4123.592625	1.374530875
12	0	0		18	4105.592625	1.368530875
13	0	0		18	4087.592625	1.362530875
14	0	0		18	4069.592625	1.356530875
15	0	0		18	4051.592625	1.350530875
16	0	0		18	4033.592625	1.344530875
17	0	0		18	4015.592625	1.338530875
18	0	0		18	3997.592625	1.332530875
19	0	0		18	3979.592625	1.326530875
20	0	0		18	3961.592625	1.320530875
21	0	0		18	3943.592625	1.314530875
22	0	0		18	3925.592625	1.308530875
23	0	0		18	3907.592625	1.302530875
24	0	0		18	3889.592625	1.296530875
25	0	0		18	3871.592625	1.290530875
26	0	0		18	3853.592625	1.284530875
27	0	0		18	3835.592625	1.278530875
28	0	0		18	3817.592625	1.272530875
29	0	0		18	3799.592625	1.266530875
30	0	0		18	3781.592625	1.260530875
31	0	0		18	3763.592625	1.254530875
November				558		
1	0	0		18	3745.592625	1.248530875
2	0	0		18	3727.592625	1.242530875
3	0	0		18	3709.592625	1.236530875
4	0	0		18	3691.592625	1.230530875
5	0	0		18	3673.592625	1.224530875
6	0	0		18	3655.592625	1.218530875
7	0	0		18	3637.592625	1.212530875
8	0	0		18	3619.592625	1.206530875
9	0	0		18	3601.592625	1.200530875
10	0	0		18	3583.592625	1.194530875

11	0	0		18	3565.592625	1.188530875
12	0	0		18	3547.592625	1.182530875
13	0	0		18	3529.592625	1.176530875
14	6.3	66.47509575		0	3596.067721	1.19868924
15	0	0		0	3596.067721	1.19868924
16	0	0		0	3596.067721	1.19868924
17	0	0		0	3596.067721	1.19868924
18	0	0		18	3578.067721	1.19268924
19	0	0		18	3560.067721	1.18668924
20	0	0		18	3542.067721	1.18068924
21	0	0		18	3524.067721	1.17468924
22	0	0		18	3506.067721	1.16868924
23	0	0		18	3488.067721	1.16268924
24	4.5	47.48221125		0	3535.549932	1.178516644
25	0	0		0	3535.549932	1.178516644
26	0	0		0	3535.549932	1.178516644
27	5	52.7580125		0	3588.307945	1.196102648
28	0	0		0	3588.307945	1.196102648
29	3	31.6548075		0	3619.962752	1.206654251
30	0	0		0	3619.962752	1.206654251
Desember				342		
1	3	31.6548075		0	3651.61756	1.217205853
2	2.5	26.37900625		0	3677.996566	1.225998855
3	5	52.7580125		0	3730.754578	1.243584859
4	18	189.928845		0	3920.683423	1.306894474
5	47.5	501.2011188		0	4421.884542	1.473961514
6	0	0		0	4421.884542	1.473961514
7	0	0		0	4421.884542	1.473961514
8	0	0		0	4421.884542	1.473961514
9	0	0		18	4403.884542	1.467961514
10	2.5	26.37900625		0	4430.263548	1.476754516
11	0	0		0	4430.263548	1.476754516
12	0	0		0	4430.263548	1.476754516
13	83.2	877.893328		0	5308.156876	1.769385625
14	0	0		0	5308.156876	1.769385625
15	0	0		0	5308.156876	1.769385625
16	0	0		0	5308.156876	1.769385625
17	0	0		18	5290.156876	1.763385625
18	0	0		18	5272.156876	1.757385625
19	0	0		18	5254.156876	1.751385625
20	0	0		18	5236.156876	1.745385625
21	0	0		18	5218.156876	1.739385625
22	0	0		18	5200.156876	1.733385625
23	0	0		18	5182.156876	1.727385625
24	1	10.5516025		0	5192.708479	1.730902826
25	0	0		0	5192.708479	1.730902826
26	22	232.135255		0	5424.843734	1.808281245
27	0	0		0	5424.843734	1.808281245
28	8	84.41282		0	5509.256554	1.836418851
29	0	0		0	5509.256554	1.836418851
30	0	0		0	5509.256554	1.836418851
31	2.4	25.323846		0	5534.5804	1.844860133

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	0	0		0	6306.468713	2.102156238
2	60	835.73001		0	7142.198723	2.380732908
3	0	0		0	7142.198723	2.380732908
4	0	0		0	7142.198723	2.380732908
5	20	278.57667		0	7420.775393	2.473591798
6	10	139.288335	1500	0	6060.063728	2.020021243
7	0	0		0	6060.063728	2.020021243
8	0	0		0	6060.063728	2.020021243
9	0	0		0	6060.063728	2.020021243
10	10	139.288335		0	6199.352063	2.066450688
11	0	0		0	6199.352063	2.066450688
12	0	0		0	6199.352063	2.066450688
13	0	0		0	6199.352063	2.066450688
14	0	0		18	6181.352063	2.060450688
15	0	0		18	6163.352063	2.054450688
16	86	1197.879681		0	7361.231744	2.453743915
17	0	0		0	7361.231744	2.453743915
18	20	278.57667	1500	0	6139.808414	2.046602805
19	0	0		0	6139.808414	2.046602805
20	0	0		0	6139.808414	2.046602805
21	0	0		0	6139.808414	2.046602805
22	40	557.15334	1500	0	5196.961754	1.732320585
23	43	598.9398405		0	5795.901595	1.931967198
24	0	0		0	5795.901595	1.931967198
25	0	0		0	5795.901595	1.931967198
26	0	0		0	5795.901595	1.931967198
27	0	0		18	5777.901595	1.925967198
28	0	0		18	5759.901595	1.919967198
29	0	0		18	5741.901595	1.913967198
30	0	0		18	5723.901595	1.907967198
31	0	0		18	5705.901595	1.901967198
Februari						
1	0	0		18	5687.901595	1.895967198
2	0	0		18	5669.901595	1.889967198
3	28	390.007338		0	6059.908933	2.019969644
4	8	111.430668		0	6171.339601	2.0571132
5	6	83.573001		0	6254.912602	2.084970867
6	0	0		0	6254.912602	2.084970867
7	0	0		0	6254.912602	2.084970867
8	0	0		0	6254.912602	2.084970867
9	20	278.57667		0	6533.489272	2.177829757
10	0	0		0	6533.489272	2.177829757
11	0	0		0	6533.489272	2.177829757
12	0	0		0	6533.489272	2.177829757
13	0	0		18	6515.489272	2.171829757
14	0	0		18	6497.489272	2.165829757
15	0	0		18	6479.489272	2.159829757
16	0	0		18	6461.489272	2.153829757
17	0	0		18	6443.489272	2.147829757
18	0	0		18	6425.489272	2.141829757
19	0	0		18	6407.489272	2.135829757
20	0	0		18	6389.489272	2.129829757
21	0	0		18	6371.489272	2.123829757
22	0	0		18	6353.489272	2.117829757
23	0	0		18	6335.489272	2.111829757
24	0	0		18	6317.489272	2.105829757
25	90	1253.595015	1500	0	6071.084287	2.023694762
26	0	0		0	6071.084287	2.023694762
27	0	0		0	6071.084287	2.023694762
28	50	696.441675		0	6767.525962	2.255841987
Maret						
1	0	0		0	6767.525962	2.255841987
2	20	278.57667		0	7046.102632	2.348700877
3	50	696.441675	1500	0	6242.544307	2.080848102
4	20	278.57667		0	6521.120977	2.173706992
5	0	0		0	6521.120977	2.173706992
6	0	0		0	6521.120977	2.173706992
7	0	0		0	6521.120977	2.173706992
8	0	0		18	6503.120977	2.167706992
9	0	0		18	6485.120977	2.161706992



10	50	696.441675	1500	0	5681.562652	1.893854217
11	0	0		0	5681.562652	1.893854217
12	15	208.9325025		0	5890.495154	1.963498385
13	0	0		0	5890.495154	1.963498385
14	0	0		0	5890.495154	1.963498385
15	0	0		0	5890.495154	1.963498385
16	0	0		18	5872.495154	1.957498385
17	0	0		18	5854.495154	1.951498385
18	0	0		18	5836.495154	1.945498385
19	0	0		18	5818.495154	1.939498385
20	50	696.441675		0	6514.936829	2.17164561
21	30	417.865005		0	6932.801834	2.310933945
22	0	0		0	6932.801834	2.310933945
23	0	0		0	6932.801834	2.310933945
24	0	0		0	6932.801834	2.310933945
25	0	0		18	6914.801834	2.304933945
26	0	0		18	6896.801834	2.298933945
27	0	0		18	6878.801834	2.292933945
28	0	0		18	6860.801834	2.286933945
29	0	0		18	6842.801834	2.280933945
30	0	0		18	6824.801834	2.274933945
31	0	0		18	6806.801834	2.268933945
April						
1	0	0		18	6788.801834	2.262933945
2	0	0		18	6770.801834	2.256933945
3	0	0		18	6752.801834	2.250933945
4	0	0		18	6734.801834	2.244933945
5	0	0		18	6716.801834	2.238933945
6	0	0		18	6698.801834	2.232933945
7	0	0		18	6680.801834	2.226933945
8	0	0		18	6662.801834	2.220933945
9	0	0		18	6644.801834	2.214933945
10	0	0		18	6626.801834	2.208933945
11	0	0		18	6608.801834	2.202933945
12	0	0		18	6590.801834	2.196933945
13	0	0		18	6572.801834	2.190933945
14	0	0		18	6554.801834	2.184933945
15	0	0		18	6536.801834	2.178933945
16	0	0		18	6518.801834	2.172933945
17	0	0		18	6500.801834	2.166933945
18	0	0		18	6482.801834	2.160933945
19	0	0		18	6464.801834	2.154933945
20	0	0		18	6446.801834	2.148933945
21	0	0		18	6428.801834	2.142933945
22	0	0		18	6410.801834	2.136933945
23	0	0		18	6392.801834	2.130933945
24	0	0		18	6374.801834	2.124933945
25	0	0		18	6356.801834	2.118933945
26	0	0		18	6338.801834	2.112933945
27	0	0		18	6320.801834	2.106933945
28	0	0		18	6302.801834	2.100933945
29	0	0		18	6284.801834	2.094933945
30	0	0		18	6266.801834	2.088933945

Mei						
1	0	0		18	6248.801834	2.082933945
2	15	208.9325025		0	6457.734337	2.152578112
3	0	0		0	6457.734337	2.152578112
4	0	0		0	6457.734337	2.152578112
5	0	0		0	6457.734337	2.152578112
6	0	0		18	6439.734337	2.146578112
7	0	0		18	6421.734337	2.140578112
8	0	0		18	6403.734337	2.134578112
9	0	0		18	6385.734337	2.128578112
10	0	0		18	6367.734337	2.122578112
11	0	0		18	6349.734337	2.116578112
12	0	0		18	6331.734337	2.110578112
13	0	0		18	6313.734337	2.104578112
14	0	0		18	6295.734337	2.098578112
15	0	0		18	6277.734337	2.092578112
16	0	0		18	6259.734337	2.086578112
17	0	0		18	6241.734337	2.080578112
18	0	0		18	6223.734337	2.074578112
19	0	0		18	6205.734337	2.068578112
20	0	0		18	6187.734337	2.062578112
21	0	0		18	6169.734337	2.056578112
22	0	0		18	6151.734337	2.050578112
23	0	0		18	6133.734337	2.044578112
24	0	0		18	6115.734337	2.038578112
25	0	0		18	6097.734337	2.032578112
26	0	0		18	6079.734337	2.026578112
27	0	0		18	6061.734337	2.020578112
28	0	0		18	6043.734337	2.014578112
29	0	0		18	6025.734337	2.008578112
30	0	0		18	6007.734337	2.002578112
31	0	0		18	5989.734337	1.996578112
Juni						
1	0	0		18	5971.734337	1.990578112
2	0	0		18	5953.734337	1.984578112
3	0	0		18	5935.734337	1.978578112
4	0	0		18	5917.734337	1.972578112
5	0	0		18	5899.734337	1.966578112
6	0	0		18	5881.734337	1.960578112
7	0	0		18	5863.734337	1.954578112
8	0	0		18	5845.734337	1.948578112
9	0	0		18	5827.734337	1.942578112
10	0	0		18	5809.734337	1.936578112
11	0	0		18	5791.734337	1.930578112
12	0	0		18	5773.734337	1.924578112
13	0	0		18	5755.734337	1.918578112
14	0	0		18	5737.734337	1.912578112
15	0	0		18	5719.734337	1.906578112
16	0	0		18	5701.734337	1.900578112
17	0	0		18	5683.734337	1.894578112
18	0	0		18	5665.734337	1.888578112
19	0	0		18	5647.734337	1.882578112
20	0	0		18	5629.734337	1.876578112
21	0	0		18	5611.734337	1.870578112
22	0	0		18	5593.734337	1.864578112
23	0	0		18	5575.734337	1.858578112
24	0	0		18	5557.734337	1.852578112
25	0	0		18	5539.734337	1.846578112
26	0	0		18	5521.734337	1.840578112
27	0	0		18	5503.734337	1.834578112
28	0	0		18	5485.734337	1.828578112
29	0	0		18	5467.734337	1.822578112
30	0	0		18	5449.734337	1.816578112
Juli						
1	0	0		18	5431.734337	1.810578112
2	0	0		18	5413.734337	1.804578112
3	0	0		18	5395.734337	1.798578112
4	0	0		18	5377.734337	1.792578112
5	0	0		18	5359.734337	1.786578112
6	0	0		18	5341.734337	1.780578112
7	0	0		18	5323.734337	1.774578112
8	0	0		18	5305.734337	1.768578112
9	0	0		18	5287.734337	1.762578112
10	0	0		18	5269.734337	1.756578112

11	0	0		18	5251.734337	1.750578112
12	0	0		18	5233.734337	1.744578112
13	0	0		18	5215.734337	1.738578112
14	0	0		18	5197.734337	1.732578112
15	0	0		18	5179.734337	1.726578112
16	0	0		18	5161.734337	1.720578112
17	0	0		18	5143.734337	1.714578112
18	0	0		18	5125.734337	1.708578112
19	0	0		18	5107.734337	1.702578112
20	0	0		18	5089.734337	1.696578112
21	0	0		18	5071.734337	1.690578112
22	0	0		18	5053.734337	1.684578112
23	0	0		18	5035.734337	1.678578112
24	0	0		18	5017.734337	1.672578112
25	0	0		18	4999.734337	1.666578112
26	0	0		18	4981.734337	1.660578112
27	0	0		18	4963.734337	1.654578112
28	0	0		18	4945.734337	1.648578112
29	0	0		18	4927.734337	1.642578112
30	0	0		18	4909.734337	1.636578112
31	0	0		18	4891.734337	1.630578112
Agustus						
1	0	0		18	4873.734337	1.624578112
2	0	0		18	4855.734337	1.618578112
3	0	0		18	4837.734337	1.612578112
4	0	0		18	4819.734337	1.606578112
5	0	0		18	4801.734337	1.600578112
6	0	0		18	4783.734337	1.594578112
7	0	0		18	4765.734337	1.588578112
8	0	0		18	4747.734337	1.582578112
9	0	0		18	4729.734337	1.576578112
10	0	0		18	4711.734337	1.570578112
11	0	0		18	4693.734337	1.564578112
12	0	0		18	4675.734337	1.558578112
13	0	0		18	4657.734337	1.552578112
14	0	0		18	4639.734337	1.546578112
15	0	0		18	4621.734337	1.540578112
16	0	0		18	4603.734337	1.534578112
17	0	0		18	4585.734337	1.528578112
18	0	0		18	4567.734337	1.522578112
19	0	0		18	4549.734337	1.516578112
20	0	0		18	4531.734337	1.510578112
21	0	0		18	4513.734337	1.504578112
22	0	0		18	4495.734337	1.498578112
23	0	0		18	4477.734337	1.492578112
24	0	0		18	4459.734337	1.486578112
25	0	0		18	4441.734337	1.480578112
26	0	0		18	4423.734337	1.474578112
27	0	0		18	4405.734337	1.468578112
28	0	0		18	4387.734337	1.462578112
29	0	0		18	4369.734337	1.456578112
30	0	0		18	4351.734337	1.450578112
31	0	0		18	4333.734337	1.444578112

September						
1	0	0		18	4315.734337	1.438578112
2	0	0		18	4297.734337	1.432578112
3	0	0		18	4279.734337	1.426578112
4	0	0		18	4261.734337	1.420578112
5	0	0		18	4243.734337	1.414578112
6	0	0		18	4225.734337	1.408578112
7	0	0		18	4207.734337	1.402578112
8	0	0		18	4189.734337	1.396578112
9	0	0		18	4171.734337	1.390578112
10	0	0		18	4153.734337	1.384578112
11	0	0		18	4135.734337	1.378578112
12	0	0		18	4117.734337	1.372578112
13	0	0		18	4099.734337	1.366578112
14	0	0		18	4081.734337	1.360578112
15	0	0		18	4063.734337	1.354578112
16	0	0		18	4045.734337	1.348578112
17	0	0		18	4027.734337	1.342578112
18	0	0		18	4009.734337	1.336578112
19	0	0		18	3991.734337	1.330578112
20	0	0		18	3973.734337	1.324578112
21	0	0		18	3955.734337	1.318578112
22	0	0		18	3937.734337	1.312578112
23	0	0		18	3919.734337	1.306578112
24	0	0		18	3901.734337	1.300578112
25	0	0		18	3883.734337	1.294578112
26	0	0		18	3865.734337	1.288578112
27	0	0		18	3847.734337	1.282578112
28	0	0		18	3829.734337	1.276578112
29	0	0		18	3811.734337	1.270578112
30	0	0		18	3793.734337	1.264578112
Oktober						
1	0	0		18	3775.734337	1.258578112
2	0	0		18	3757.734337	1.252578112
3	0	0		18	3739.734337	1.246578112
4	0	0		18	3721.734337	1.240578112
5	0	0		18	3703.734337	1.234578112
6	0	0		18	3685.734337	1.228578112
7	0	0		18	3667.734337	1.222578112
8	0	0		18	3649.734337	1.216578112
9	0	0		18	3631.734337	1.210578112
10	0	0		18	3613.734337	1.204578112
11	0	0		18	3595.734337	1.198578112
12	0	0		18	3577.734337	1.192578112
13	0	0		18	3559.734337	1.186578112
14	0	0		18	3541.734337	1.180578112
15	0	0		18	3523.734337	1.174578112
16	0	0		18	3505.734337	1.168578112
17	0	0		18	3487.734337	1.162578112
18	0	0		18	3469.734337	1.156578112
19	0	0		18	3451.734337	1.150578112
20	0	0		18	3433.734337	1.144578112
21	0	0		18	3415.734337	1.138578112
22	0	0		18	3397.734337	1.132578112
23	0	0		18	3379.734337	1.126578112
24	0	0		18	3361.734337	1.120578112
25	0	0		18	3343.734337	1.114578112
26	0	0		18	3325.734337	1.108578112
27	0	0		18	3307.734337	1.102578112
28	0	0		18	3289.734337	1.096578112
29	0	0		18	3271.734337	1.090578112
30	33	459.6515055		0	3731.385842	1.243795281
31	0	0		0	3731.385842	1.243795281
November						
1	0	0		0	3731.385842	1.243795281
2	43	598.9398405		0	4330.325683	1.443441894
3	0	0		0	4330.325683	1.443441894
4	0	0		0	4330.325683	1.443441894
5	0	0		0	4330.325683	1.443441894
6	0	0		18	4312.325683	1.437441894
7	4	55.715334		0	4368.041017	1.456013672
8	0	0		0	4368.041017	1.456013672
9	0	0		0	4368.041017	1.456013672
10	0	0		0	4368.041017	1.456013672

11	24	334.292004		0	4702.333021	1.56744434
12	0	0		0	4702.333021	1.56744434
13	0	0		0	4702.333021	1.56744434
14	0	0		0	4702.333021	1.56744434
15	0	0		18	4684.333021	1.56144434
16	0	0		18	4666.333021	1.55544434
17	0	0		18	4648.333021	1.54944434
18	0	0		18	4630.333021	1.54344434
19	0	0		18	4612.333021	1.53744434
20	75	1044.662513		0	5656.995533	1.885665178
21	0	0		0	5656.995533	1.885665178
22	0	0		0	5656.995533	1.885665178
23	0	0		0	5656.995533	1.885665178
24	0	0		18	5638.995533	1.879665178
25	22	306.434337		0	5945.42987	1.981809957
26	35	487.5091725		0	6432.939043	2.144313014
27	0	0		0	6432.939043	2.144313014
28	0	0		0	6432.939043	2.144313014
29	0	0		0	6432.939043	2.144313014
30	0	0		18	6414.939043	2.138313014
Desember						
1	0	0		18	6396.939043	2.132313014
2	0	0		18	6378.939043	2.126313014
3	0	0		18	6360.939043	2.120313014
4	0	0		18	6342.939043	2.114313014
5	0	0		18	6324.939043	2.108313014
6	0	0		18	6306.939043	2.102313014
7	13	181.0748355		0	6488.013878	2.162671293
8	14	195.003669		0	6683.017547	2.227672516
9	0	0		0	6683.017547	2.227672516
10	30	417.865005		0	7100.882552	2.366960851
11	45	626.7975075	1500	0	6227.68006	2.075893353
12	0	0		0	6227.68006	2.075893353
13	49	682.5128415	1500	0	5410.192901	1.803397634
14	35	487.5091725		0	5897.702074	1.965900691
15	53	738.2281755		0	6635.930249	2.21197675
16	27	376.0785045	1500	0	5512.008754	1.837336251
17	60	835.73001	1500	0	4847.738764	1.615912921
18	0	0		0	4847.738764	1.615912921
19	0	0		0	4847.738764	1.615912921
20	0	0		0	4847.738764	1.615912921
21	0	0		18	4829.738764	1.609912921
22	0	0		18	4811.738764	1.603912921
23	0	0		18	4793.738764	1.597912921
24	0	0		18	4775.738764	1.591912921
25	0	0		18	4757.738764	1.585912921
26	0	0		18	4739.738764	1.579912921
27	20	278.57667		0	5018.315434	1.672771811
28	60	835.73001		0	5854.045444	1.951348481
29	0	0		0	5854.045444	1.951348481
30	0	0		0	5854.045444	1.951348481
31	24	334.292004		0	6188.337448	2.062779149

**TAMAN ALUMNI ITS**

TANGGAL	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3 )	tinggi air (m)
<b>Januari</b>	<b>R (mm)</b>					
1	4.8	50.647692		0	5585.228092	1.861742697
2	10	105.51603		0	5690.744117	1.896914706
3	36.5	385.13349		0	6075.877608	2.025292536
4	0	0		0	6075.877608	2.025292536
5	22	232.13526		0	6308.012863	2.102670954
6	7	73.861218		0	6381.874081	2.12729136
7	0	0		0	6381.874081	2.12729136
8	0	0		0	6381.874081	2.12729136
9	22.3	235.30074		0	6617.174816	2.205724939
10	16	168.82564		0	6786.000456	2.262000152
11	15	158.27404		0	6944.274494	2.314758165
12	53	559.23493		0	7503.509426	2.501169809
13	27	284.89327		0	7788.402694	2.596134231
14	12	126.61923		0	7915.021924	2.638340641
15	25	263.79006	1000	0	7178.811986	2.392937329
16	0	0		0	7178.811986	2.392937329
17	0	0		0	7178.811986	2.392937329
18	0	0		0	7178.811986	2.392937329
19	2	21.103205		0	7199.915191	2.39997173
20	10	105.51603		0	7305.431216	2.435143739
21	0	0		0	7305.431216	2.435143739
22	0	0		0	7305.431216	2.435143739
23	7.7	81.247339		0	7386.678556	2.462226185
24	0	0		0	7386.678556	2.462226185
25	44	464.27051	1000	0	6850.949066	2.283649689
26	0	0		0	6850.949066	2.283649689
27	0	0		0	6850.949066	2.283649689
28	7	73.861218		0	6924.810283	2.308270094
29	0	0		0	6924.810283	2.308270094
30	102	1076.2635	1000	0	7001.073738	2.333691246
31	54	569.78654		0	7570.860273	2.523620091
<b>Februari</b>				<b>0</b>		
1	4	42.20641		0	7613.066683	2.537688894
2	0	0		0	7613.066683	2.537688894
3	8.2	86.523141		0	7699.589824	2.566529941
4	40	422.0641	1000	0	7121.653924	2.373884641
5	9	94.964423	1000	0	6216.618346	2.072206115
6	0.9	9.4964423		0	6226.114788	2.075371596
7	3.5	36.930609		0	6263.045397	2.087681799
8	0	0		0	6263.045397	2.087681799
9	4.7	49.592532		0	6312.637929	2.104212643
10	16.2	170.93596		0	6483.573889	2.161191296
11	1	10.551603		0	6494.125492	2.164708497
12	0	0		0	6494.125492	2.164708497
13	0	0		0	6494.125492	2.164708497
14	60	633.09615		0	7127.221642	2.375740547
15	27.5	290.16907	1000	0	6417.390711	2.139130237
16	0	0		0	6417.390711	2.139130237
17	11.4	120.28827		0	6537.678979	2.179226326
18	1	10.551603		0	6548.230582	2.182743527
19	12.3	129.78471		0	6678.015292	2.226005097
20	0	0		0	6678.015292	2.226005097
21	0	0		0	6678.015292	2.226005097
22	2	21.103205		0	6699.118497	2.233039499
23	0	0		0	6699.118497	2.233039499
24	0	0		0	6699.118497	2.233039499
25	1.1	11.606763		0	6710.72526	2.23690842
26	2	21.103205		0	6731.828465	2.243942822
27	2.1	22.158365		0	6753.98683	2.251328943
28	0	0		0	6753.98683	2.251328943
<b>Maret</b>				<b>0</b>		
1	0	0		0	6753.98683	2.251328943
2	8	84.41282		0	6838.39965	2.27946655
3	0	0		0	6838.39965	2.27946655
4	42	443.16731	1000	0	6281.566955	2.093855652
5	0	0		0	6281.566955	2.093855652
6	0.9	9.4964423		0	6291.063398	2.097021133
7	5.5	58.033814		0	6349.097211	2.116365737
8	15	158.27404		0	6507.371249	2.16912375
9	7	73.861218		0	6581.232466	2.193744155
10	5	52.758013		0	6633.990479	2.21133016

11	35	369.30609	1000	0	6003.296566	2.001098855
12	0	0		0	6003.296566	2.001098855
13	0	0		0	6003.296566	2.001098855
14	0	0		0	6003.296566	2.001098855
15	0	0		18	5985.296566	1.995098855
16	20	211.03205		0	6196.328616	2.065442872
17	0	0		0	6196.328616	2.065442872
18	0	0		0	6196.328616	2.065442872
19	0	0		0	6196.328616	2.065442872
20	0	0		18	6178.328616	2.059442872
21	23	242.68686		0	6421.015474	2.140338491
22	20	211.03205		0	6632.047524	2.210682508
23	0	0		0	6632.047524	2.210682508
24	0	0		0	6632.047524	2.210682508
25	0	0		0	6632.047524	2.210682508
26	20	211.03205		0	6843.079574	2.281026525
27	0	0		0	6843.079574	2.281026525
28	0	0		0	6843.079574	2.281026525
29	0	0		0	6843.079574	2.281026525
30	0	0		18	6825.079574	2.275026525
31	0	0		18	6807.079574	2.269026525
April				72		
1	0	0		18	6789.079574	2.263026525
2	0	0		18	6771.079574	2.257026525
3	0	0		18	6753.079574	2.251026525
4	0	0		18	6735.079574	2.245026525
5	0	0		18	6717.079574	2.239026525
6	15	158.27404		0	6875.353611	2.291784537
7	0	0		0	6875.353611	2.291784537
8	0	0		0	6875.353611	2.291784537
9	7	73.861218		0	6949.214829	2.316404943
10	0	0		0	6949.214829	2.316404943
11	9	94.964423	1000	0	6044.179251	2.014726417
12	0	0		0	6044.179251	2.014726417
13	20	211.03205	1000	0	5255.211301	1.7517371
14	0	0		0	5255.211301	1.7517371
15	0	0		0	5255.211301	1.7517371
16	0	0		0	5255.211301	1.7517371
17	0	0		18	5237.211301	1.7457371
18	0	0		18	5219.211301	1.7397371
19	0	0		18	5201.211301	1.7337371
20	0	0		18	5183.211301	1.7277371
21	0	0		18	5165.211301	1.7217371
22	0	0		18	5147.211301	1.7157371
23	0	0		18	5129.211301	1.7097371
24	0	0		18	5111.211301	1.7037371
25	0	0		18	5093.211301	1.6977371
26	0	0		18	5075.211301	1.6917371
27	0	0		18	5057.211301	1.6857371
28	0	0		18	5039.211301	1.6797371
29	0	0		18	5021.211301	1.6737371
30	32	337.65128		0	5358.862581	1.786287527

Mei				324		
1	0	0		0	5358.862581	1.786287527
2	30	316.54808		0	5675.410656	1.891803552
3	0	0		0	5675.410656	1.891803552
4	0	0		0	5675.410656	1.891803552
5	25	263.79006		0	5939.200719	1.979733573
6	0	0		0	5939.200719	1.979733573
7	25	263.79006	1000	0	5202.990781	1.73433026
8	14	147.72244		0	5350.713216	1.783571072
9	0	0		0	5350.713216	1.783571072
10	0	0		0	5350.713216	1.783571072
11	3	31.654808		0	5382.368024	1.794122675
12	0	0		0	5382.368024	1.794122675
13	0	0		0	5382.368024	1.794122675
14	0	0		0	5382.368024	1.794122675
15	0	0		18	5364.368024	1.788122675
16	0	0		18	5346.368024	1.782122675
17	0	0		18	5328.368024	1.776122675
18	0	0		18	5310.368024	1.770122675
19	0	0		18	5292.368024	1.764122675
20	0	0		18	5274.368024	1.758122675
21	0	0		18	5256.368024	1.752122675
22	0	0		18	5238.368024	1.746122675
23	0	0		18	5220.368024	1.740122675
24	0	0		18	5202.368024	1.734122675
25	0	0		18	5184.368024	1.728122675
26	0	0		18	5166.368024	1.722122675
27	0	0		18	5148.368024	1.716122675
28	0	0		18	5130.368024	1.710122675
29	0	0		18	5112.368024	1.704122675
30	0	0		18	5094.368024	1.698122675
31	0	0		18	5076.368024	1.692122675
Juni				306		
1	0	0		18	5058.368024	1.686122675
2	0	0		18	5040.368024	1.680122675
3	0	0		18	5022.368024	1.674122675
4	0	0		18	5004.368024	1.668122675
5	0	0		18	4986.368024	1.662122675
6	0	0		18	4968.368024	1.656122675
7	0	0		18	4950.368024	1.650122675
8	12	126.61923		0	5076.987254	1.692329085
9	0	0		0	5076.987254	1.692329085
10	0	0		0	5076.987254	1.692329085
11	0	0		0	5076.987254	1.692329085
12	2	21.103205		0	5098.090459	1.699363486
13	0	0		0	5098.090459	1.699363486
14	0	0		0	5098.090459	1.699363486
15	0	0		0	5098.090459	1.699363486
16	0	0		18	5080.090459	1.693363486
17	0	0		18	5062.090459	1.687363486
18	3	31.654808		0	5093.745266	1.697915089
19	10	105.51603		0	5199.261291	1.733087097
20	10	105.51603		0	5304.777316	1.768259105
21	0	0		0	5304.777316	1.768259105
22	4	42.20641		0	5346.983726	1.782327909
23	0	0		0	5346.983726	1.782327909
24	0	0		0	5346.983726	1.782327909
25	0	0		0	5346.983726	1.782327909
26	0	0		18	5328.983726	1.776327909
27	0	0		18	5310.983726	1.770327909
28	0	0		18	5292.983726	1.764327909
29	0	0		18	5274.983726	1.758327909
30	0	0		18	5256.983726	1.752327909
Juli				252		
1	0	0		18	5238.983726	1.746327909
2	0	0		18	5220.983726	1.740327909
3	0	0		18	5202.983726	1.734327909
4	0	0		18	5184.983726	1.728327909
5	0	0		18	5166.983726	1.722327909
6	0	0		18	5148.983726	1.716327909
7	0	0		18	5130.983726	1.710327909
8	0	0		18	5112.983726	1.704327909
9	0	0		18	5094.983726	1.698327909
10	0	0		18	5076.983726	1.692327909



11	0	0		18	5058.983726	1.686327909
12	0	0		18	5040.983726	1.680327909
13	0	0		18	5022.983726	1.674327909
14	0	0		18	5004.983726	1.668327909
15	0	0		18	4986.983726	1.662327909
16	0	0		18	4968.983726	1.656327909
17	0	0		18	4950.983726	1.650327909
18	0	0		18	4932.983726	1.644327909
19	0	0		18	4914.983726	1.638327909
20	0	0		18	4896.983726	1.632327909
21	0	0		18	4878.983726	1.626327909
22	0	0		18	4860.983726	1.620327909
23	0	0		18	4842.983726	1.614327909
24	0	0		18	4824.983726	1.608327909
25	0	0		18	4806.983726	1.602327909
26	0	0		18	4788.983726	1.596327909
27	0	0		18	4770.983726	1.590327909
28	0	0		18	4752.983726	1.584327909
29	0	0		18	4734.983726	1.578327909
30	0	0		18	4716.983726	1.572327909
31	0	0		18	4698.983726	1.566327909
Agustus				558		
1	0	0		18	4680.983726	1.560327909
2	0	0		18	4662.983726	1.554327909
3	0	0		18	4644.983726	1.548327909
4	0	0		18	4626.983726	1.542327909
5	0	0		18	4608.983726	1.536327909
6	0	0		18	4590.983726	1.530327909
7	0	0		18	4572.983726	1.524327909
8	0	0		18	4554.983726	1.518327909
9	0	0		18	4536.983726	1.512327909
10	0	0		18	4518.983726	1.506327909
11	0	0		18	4500.983726	1.500327909
12	0	0		18	4482.983726	1.494327909
13	0	0		18	4464.983726	1.488327909
14	0	0		18	4446.983726	1.482327909
15	0	0		18	4428.983726	1.476327909
16	0	0		18	4410.983726	1.470327909
17	0	0		18	4392.983726	1.464327909
18	0	0		18	4374.983726	1.458327909
19	0	0		18	4356.983726	1.452327909
20	0	0		18	4338.983726	1.446327909
21	0	0		18	4320.983726	1.440327909
22	0	0		18	4302.983726	1.434327909
23	0	0		18	4284.983726	1.428327909
24	0	0		18	4266.983726	1.422327909
25	0	0		18	4248.983726	1.416327909
26	0	0		18	4230.983726	1.410327909
27	0	0		18	4212.983726	1.404327909
28	0	0		18	4194.983726	1.398327909
29	0	0		18	4176.983726	1.392327909
30	0	0		18	4158.983726	1.386327909
31	0	0		18	4140.983726	1.380327909

September				558		
1	0	0		18	4122.983726	1.374327909
2	0	0		18	4104.983726	1.368327909
3	0	0		18	4086.983726	1.362327909
4	0	0		18	4068.983726	1.356327909
5	0	0		18	4050.983726	1.350327909
6	0	0		18	4032.983726	1.344327909
7	0	0		18	4014.983726	1.338327909
8	0	0		18	3996.983726	1.332327909
9	0	0		18	3978.983726	1.326327909
10	0	0		18	3960.983726	1.320327909
11	0	0		18	3942.983726	1.314327909
12	0	0		18	3924.983726	1.308327909
13	0	0		18	3906.983726	1.302327909
14	0	0		18	3888.983726	1.296327909
15	0	0		18	3870.983726	1.290327909
16	0	0		18	3852.983726	1.284327909
17	0	0		18	3834.983726	1.278327909
18	0	0		18	3816.983726	1.272327909
19	0	0		18	3798.983726	1.266327909
20	0	0		18	3780.983726	1.260327909
21	0	0		18	3762.983726	1.254327909
22	0	0		18	3744.983726	1.248327909
23	0	0		18	3726.983726	1.242327909
24	0	0		18	3708.983726	1.236327909
25	0	0		18	3690.983726	1.230327909
26	0	0		18	3672.983726	1.224327909
27	0	0		18	3654.983726	1.218327909
28	0	0		18	3636.983726	1.212327909
29	0	0		18	3618.983726	1.206327909
30	0	0		18	3600.983726	1.200327909
Oktober				540		
1	0	0		18	3582.983726	1.194327909
2	0	0		18	3564.983726	1.188327909
3	0	0		18	3546.983726	1.182327909
4	0	0		18	3528.983726	1.176327909
5	0	0		18	3510.983726	1.170327909
6	0	0		18	3492.983726	1.164327909
7	0	0		18	3474.983726	1.158327909
8	0	0		18	3456.983726	1.152327909
9	0	0		18	3438.983726	1.146327909
10	0	0		18	3420.983726	1.140327909
11	0	0		18	3402.983726	1.134327909
12	0	0		18	3384.983726	1.128327909
13	0	0		18	3366.983726	1.122327909
14	0	0		18	3348.983726	1.116327909
15	0	0		18	3330.983726	1.110327909
16	0	0		18	3312.983726	1.104327909
17	0	0		18	3294.983726	1.098327909
18	0	0		18	3276.983726	1.092327909
19	0	0		18	3258.983726	1.086327909
20	0	0		18	3240.983726	1.080327909
21	0	0		18	3222.983726	1.074327909
22	0	0		18	3204.983726	1.068327909
23	0	0		18	3186.983726	1.062327909
24	0	0		18	3168.983726	1.056327909
25	0	0		18	3150.983726	1.050327909
26	0	0		18	3132.983726	1.044327909
27	0	0		18	3114.983726	1.038327909
28	0	0		18	3096.983726	1.032327909
29	0	0		18	3078.983726	1.026327909
30	0	0		18	3060.983726	1.020327909
31	0	0		18	3042.983726	1.014327909
November				558		
1	0	0		18	3024.983726	1.008327909
2	0	0		18	3006.983726	1.002327909
3	0	0		18	2988.983726	0.996327909
4	0	0		18	2970.983726	0.990327909
5	0	0		18	2952.983726	0.984327909
6	0	0		18	2934.983726	0.978327909
7	0	0		18	2916.983726	0.972327909
8	0	0		18	2898.983726	0.966327909
9	0	0		18	2880.983726	0.960327909
10	5	52.758013		18	2915.741739	0.971913913

11	0	0		18	2897.741739	0.965913913
12	0	0		18	2879.741739	0.959913913
13	0	0		18	2861.741739	0.953913913
14	0	0		18	2843.741739	0.947913913
15	0	0		18	2825.741739	0.941913913
16	0	0		18	2807.741739	0.935913913
17	0	0		18	2789.741739	0.929913913
18	9	94.964423		0	2884.706161	0.96156872
19	0	0		0	2884.706161	0.96156872
20	0	0		0	2884.706161	0.96156872
21	0	0		0	2884.706161	0.96156872
22	0	0		18	2866.706161	0.95556872
23	0	0		18	2848.706161	0.94956872
24	0	0		18	2830.706161	0.94356872
25	0	0		18	2812.706161	0.93756872
26	0	0		18	2794.706161	0.93156872
27	0	0		18	2776.706161	0.92556872
28	0	0		18	2758.706161	0.91956872
29	0	0		18	2740.706161	0.91356872
30	0	0		18	2722.706161	0.90756872
Desember				468		
1	0	0		18	2704.706161	0.90156872
2	0	0		18	2686.706161	0.89556872
3	0	0		18	2668.706161	0.88956872
4	0	0		18	2650.706161	0.88356872
5	0	0		18	2632.706161	0.87756872
6	0	0		18	2614.706161	0.87156872
7	0	0		18	2596.706161	0.86556872
8	0	0		18	2578.706161	0.85956872
9	0	0		18	2560.706161	0.85356872
10	0	0		18	2542.706161	0.84756872
11	0	0		18	2524.706161	0.84156872
12	0	0		18	2506.706161	0.83556872
13	0	0		18	2488.706161	0.82956872
14	0	0		18	2470.706161	0.82356872
15	0	0		18	2452.706161	0.81756872
16	0	0		18	2434.706161	0.81156872
17	0	0		18	2416.706161	0.80556872
18	0	0		18	2398.706161	0.79956872
19	0	0		18	2380.706161	0.79356872
20	0	0		18	2362.706161	0.78756872
21	0	0		18	2344.706161	0.78156872
22	0	0		18	2326.706161	0.77556872
23	0	0		18	2308.706161	0.76956872
24	0	0		18	2290.706161	0.76356872
25	0	0		18	2272.706161	0.75756872
26	0	0		18	2254.706161	0.75156872
27	0	0		18	2236.706161	0.74556872
28	0	0		18	2218.706161	0.73956872
29	0	0		18	2200.706161	0.73356872
30	0	0		18	2182.706161	0.72756872
31	0	0		18	2164.706161	0.72156872

**FTK ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	<b>Vol. I (m3)</b>	<b>Vol O 1</b>	<b>Vol O(m3)</b>	<b>DS(m3)</b>	<b>tinggi air (m)</b>
1	0	0		0	6306.468713	2.102156238
2	60	835.73001		0	7142.198723	2.380732908
3	0	0		0	7142.198723	2.380732908
4	0	0		0	7142.198723	2.380732908
5	20	278.57667		0	7420.775393	2.473591798
6	10	139.288335	1500	0	6060.063728	2.020021243
7	0	0		0	6060.063728	2.020021243
8	0	0		0	6060.063728	2.020021243
9	0	0		0	6060.063728	2.020021243
10	10	139.288335		0	6199.352063	2.066450688
11	0	0		0	6199.352063	2.066450688
12	0	0		0	6199.352063	2.066450688
13	0	0		0	6199.352063	2.066450688
14	0	0		18	6181.352063	2.060450688
15	0	0		18	6163.352063	2.054450688
16	86	1197.879681		0	7361.231744	2.453743915
17	0	0		0	7361.231744	2.453743915
18	20	278.57667	1500	0	6139.808414	2.046602805
19	0	0		0	6139.808414	2.046602805
20	0	0		0	6139.808414	2.046602805
21	0	0		0	6139.808414	2.046602805
22	40	557.15334	1500	0	5196.961754	1.732320585
23	43	598.9398405		0	5795.901595	1.931967198
24	0	0		0	5795.901595	1.931967198
25	0	0		0	5795.901595	1.931967198
26	0	0		0	5795.901595	1.931967198
27	0	0		18	5777.901595	1.925967198
28	0	0		18	5759.901595	1.919967198
29	0	0		18	5741.901595	1.913967198
30	0	0		18	5723.901595	1.907967198
31	0	0		18	5705.901595	1.901967198
<b>Februari</b>						
1	0	0		18	5687.901595	1.895967198
2	0	0		18	5669.901595	1.889967198
3	28	390.007338		0	6059.908933	2.019969644
4	8	111.430668		0	6171.339601	2.0571132
5	6	83.573001		0	6254.912602	2.084970867
6	0	0		0	6254.912602	2.084970867
7	0	0		0	6254.912602	2.084970867
8	0	0		0	6254.912602	2.084970867
9	20	278.57667		0	6533.489272	2.177829757
10	0	0		0	6533.489272	2.177829757
11	0	0		0	6533.489272	2.177829757
12	0	0		0	6533.489272	2.177829757
13	0	0		18	6515.489272	2.171829757
14	0	0		18	6497.489272	2.165829757
15	0	0		18	6479.489272	2.159829757
16	0	0		18	6461.489272	2.153829757
17	0	0		18	6443.489272	2.147829757
18	0	0		18	6425.489272	2.141829757
19	0	0		18	6407.489272	2.135829757
20	0	0		18	6389.489272	2.129829757
21	0	0		18	6371.489272	2.123829757
22	0	0		18	6353.489272	2.117829757
23	0	0		18	6335.489272	2.111829757
24	0	0		18	6317.489272	2.105829757
25	90	1253.595015	1500	0	6071.084287	2.023694762
26	0	0		0	6071.084287	2.023694762
27	0	0		0	6071.084287	2.023694762
28	50	696.441675		0	6767.525962	2.255841987
<b>Maret</b>						
1	0	0		0	6767.525962	2.255841987
2	20	278.57667		0	7046.102632	2.348700877
3	50	696.441675	1500	0	6242.544307	2.080848102
4	20	278.57667		0	6521.120977	2.173706992
5	0	0		0	6521.120977	2.173706992
6	0	0		0	6521.120977	2.173706992
7	0	0		0	6521.120977	2.173706992
8	0	0		18	6503.120977	2.167706992
9	0	0		18	6485.120977	2.161706992

10	50	696.441675	1500	0	5681.562652	1.893854217
11	0	0		0	5681.562652	1.893854217
12	15	208.9325025		0	5890.495154	1.963498385
13	0	0		0	5890.495154	1.963498385
14	0	0		0	5890.495154	1.963498385
15	0	0		0	5890.495154	1.963498385
16	0	0		18	5872.495154	1.957498385
17	0	0		18	5854.495154	1.951498385
18	0	0		18	5836.495154	1.945498385
19	0	0		18	5818.495154	1.939498385
20	50	696.441675		0	6514.936829	2.17164561
21	30	417.865005		0	6932.801834	2.310933945
22	0	0		0	6932.801834	2.310933945
23	0	0		0	6932.801834	2.310933945
24	0	0		0	6932.801834	2.310933945
25	0	0		18	6914.801834	2.304933945
26	0	0		18	6896.801834	2.298933945
27	0	0		18	6878.801834	2.292933945
28	0	0		18	6860.801834	2.286933945
29	0	0		18	6842.801834	2.280933945
30	0	0		18	6824.801834	2.274933945
31	0	0		18	6806.801834	2.268933945
April						
1	0	0		18	6788.801834	2.262933945
2	0	0		18	6770.801834	2.256933945
3	0	0		18	6752.801834	2.250933945
4	0	0		18	6734.801834	2.244933945
5	0	0		18	6716.801834	2.238933945
6	0	0		18	6698.801834	2.232933945
7	0	0		18	6680.801834	2.226933945
8	0	0		18	6662.801834	2.220933945
9	0	0		18	6644.801834	2.214933945
10	0	0		18	6626.801834	2.208933945
11	0	0		18	6608.801834	2.202933945
12	0	0		18	6590.801834	2.196933945
13	0	0		18	6572.801834	2.190933945
14	0	0		18	6554.801834	2.184933945
15	0	0		18	6536.801834	2.178933945
16	0	0		18	6518.801834	2.172933945
17	0	0		18	6500.801834	2.166933945
18	0	0		18	6482.801834	2.160933945
19	0	0		18	6464.801834	2.154933945
20	0	0		18	6446.801834	2.148933945
21	0	0		18	6428.801834	2.142933945
22	0	0		18	6410.801834	2.136933945
23	0	0		18	6392.801834	2.130933945
24	0	0		18	6374.801834	2.124933945
25	0	0		18	6356.801834	2.118933945
26	0	0		18	6338.801834	2.112933945
27	0	0		18	6320.801834	2.106933945
28	0	0		18	6302.801834	2.100933945
29	0	0		18	6284.801834	2.094933945
30	0	0		18	6266.801834	2.088933945

Mei						
1	0	0		18	6248.801834	2.082933945
2	15	208.9325025		0	6457.734337	2.152578112
3	0	0		0	6457.734337	2.152578112
4	0	0		0	6457.734337	2.152578112
5	0	0		0	6457.734337	2.152578112
6	0	0		18	6439.734337	2.146578112
7	0	0		18	6421.734337	2.140578112
8	0	0		18	6403.734337	2.134578112
9	0	0		18	6385.734337	2.128578112
10	0	0		18	6367.734337	2.122578112
11	0	0		18	6349.734337	2.116578112
12	0	0		18	6331.734337	2.110578112
13	0	0		18	6313.734337	2.104578112
14	0	0		18	6295.734337	2.098578112
15	0	0		18	6277.734337	2.092578112
16	0	0		18	6259.734337	2.086578112
17	0	0		18	6241.734337	2.080578112
18	0	0		18	6223.734337	2.074578112
19	0	0		18	6205.734337	2.068578112
20	0	0		18	6187.734337	2.062578112
21	0	0		18	6169.734337	2.056578112
22	0	0		18	6151.734337	2.050578112
23	0	0		18	6133.734337	2.044578112
24	0	0		18	6115.734337	2.038578112
25	0	0		18	6097.734337	2.032578112
26	0	0		18	6079.734337	2.026578112
27	0	0		18	6061.734337	2.020578112
28	0	0		18	6043.734337	2.014578112
29	0	0		18	6025.734337	2.008578112
30	0	0		18	6007.734337	2.002578112
31	0	0		18	5989.734337	1.996578112
Juni						
1	0	0		18	5971.734337	1.990578112
2	0	0		18	5953.734337	1.984578112
3	0	0		18	5935.734337	1.978578112
4	0	0		18	5917.734337	1.972578112
5	0	0		18	5899.734337	1.966578112
6	0	0		18	5881.734337	1.960578112
7	0	0		18	5863.734337	1.954578112
8	0	0		18	5845.734337	1.948578112
9	0	0		18	5827.734337	1.942578112
10	0	0		18	5809.734337	1.936578112
11	0	0		18	5791.734337	1.930578112
12	0	0		18	5773.734337	1.924578112
13	0	0		18	5755.734337	1.918578112
14	0	0		18	5737.734337	1.912578112
15	0	0		18	5719.734337	1.906578112
16	0	0		18	5701.734337	1.900578112
17	0	0		18	5683.734337	1.894578112
18	0	0		18	5665.734337	1.888578112
19	0	0		18	5647.734337	1.882578112
20	0	0		18	5629.734337	1.876578112
21	0	0		18	5611.734337	1.870578112
22	0	0		18	5593.734337	1.864578112
23	0	0		18	5575.734337	1.858578112
24	0	0		18	5557.734337	1.852578112
25	0	0		18	5539.734337	1.846578112
26	0	0		18	5521.734337	1.840578112
27	0	0		18	5503.734337	1.834578112
28	0	0		18	5485.734337	1.828578112
29	0	0		18	5467.734337	1.822578112
30	0	0		18	5449.734337	1.816578112
Juli						
1	0	0		18	5431.734337	1.810578112
2	0	0		18	5413.734337	1.804578112
3	0	0		18	5395.734337	1.798578112
4	0	0		18	5377.734337	1.792578112
5	0	0		18	5359.734337	1.786578112
6	0	0		18	5341.734337	1.780578112
7	0	0		18	5323.734337	1.774578112
8	0	0		18	5305.734337	1.768578112
9	0	0		18	5287.734337	1.762578112
10	0	0		18	5269.734337	1.756578112

11	0	0		18	5251.734337	1.750578112
12	0	0		18	5233.734337	1.744578112
13	0	0		18	5215.734337	1.738578112
14	0	0		18	5197.734337	1.732578112
15	0	0		18	5179.734337	1.726578112
16	0	0		18	5161.734337	1.720578112
17	0	0		18	5143.734337	1.714578112
18	0	0		18	5125.734337	1.708578112
19	0	0		18	5107.734337	1.702578112
20	0	0		18	5089.734337	1.696578112
21	0	0		18	5071.734337	1.690578112
22	0	0		18	5053.734337	1.684578112
23	0	0		18	5035.734337	1.678578112
24	0	0		18	5017.734337	1.672578112
25	0	0		18	4999.734337	1.666578112
26	0	0		18	4981.734337	1.660578112
27	0	0		18	4963.734337	1.654578112
28	0	0		18	4945.734337	1.648578112
29	0	0		18	4927.734337	1.642578112
30	0	0		18	4909.734337	1.636578112
31	0	0		18	4891.734337	1.630578112
Agustus						
1	0	0		18	4873.734337	1.624578112
2	0	0		18	4855.734337	1.618578112
3	0	0		18	4837.734337	1.612578112
4	0	0		18	4819.734337	1.606578112
5	0	0		18	4801.734337	1.600578112
6	0	0		18	4783.734337	1.594578112
7	0	0		18	4765.734337	1.588578112
8	0	0		18	4747.734337	1.582578112
9	0	0		18	4729.734337	1.576578112
10	0	0		18	4711.734337	1.570578112
11	0	0		18	4693.734337	1.564578112
12	0	0		18	4675.734337	1.558578112
13	0	0		18	4657.734337	1.552578112
14	0	0		18	4639.734337	1.546578112
15	0	0		18	4621.734337	1.540578112
16	0	0		18	4603.734337	1.534578112
17	0	0		18	4585.734337	1.528578112
18	0	0		18	4567.734337	1.522578112
19	0	0		18	4549.734337	1.516578112
20	0	0		18	4531.734337	1.510578112
21	0	0		18	4513.734337	1.504578112
22	0	0		18	4495.734337	1.498578112
23	0	0		18	4477.734337	1.492578112
24	0	0		18	4459.734337	1.486578112
25	0	0		18	4441.734337	1.480578112
26	0	0		18	4423.734337	1.474578112
27	0	0		18	4405.734337	1.468578112
28	0	0		18	4387.734337	1.462578112
29	0	0		18	4369.734337	1.456578112
30	0	0		18	4351.734337	1.450578112
31	0	0		18	4333.734337	1.444578112

September						
1	0	0		18	4315.734337	1.438578112
2	0	0		18	4297.734337	1.432578112
3	0	0		18	4279.734337	1.426578112
4	0	0		18	4261.734337	1.420578112
5	0	0		18	4243.734337	1.414578112
6	0	0		18	4225.734337	1.408578112
7	0	0		18	4207.734337	1.402578112
8	0	0		18	4189.734337	1.396578112
9	0	0		18	4171.734337	1.390578112
10	0	0		18	4153.734337	1.384578112
11	0	0		18	4135.734337	1.378578112
12	0	0		18	4117.734337	1.372578112
13	0	0		18	4099.734337	1.366578112
14	0	0		18	4081.734337	1.360578112
15	0	0		18	4063.734337	1.354578112
16	0	0		18	4045.734337	1.348578112
17	0	0		18	4027.734337	1.342578112
18	0	0		18	4009.734337	1.336578112
19	0	0		18	3991.734337	1.330578112
20	0	0		18	3973.734337	1.324578112
21	0	0		18	3955.734337	1.318578112
22	0	0		18	3937.734337	1.312578112
23	0	0		18	3919.734337	1.306578112
24	0	0		18	3901.734337	1.300578112
25	0	0		18	3883.734337	1.294578112
26	0	0		18	3865.734337	1.288578112
27	0	0		18	3847.734337	1.282578112
28	0	0		18	3829.734337	1.276578112
29	0	0		18	3811.734337	1.270578112
30	0	0		18	3793.734337	1.264578112
Oktober						
1	0	0		18	3775.734337	1.258578112
2	0	0		18	3757.734337	1.252578112
3	0	0		18	3739.734337	1.246578112
4	0	0		18	3721.734337	1.240578112
5	0	0		18	3703.734337	1.234578112
6	0	0		18	3685.734337	1.228578112
7	0	0		18	3667.734337	1.222578112
8	0	0		18	3649.734337	1.216578112
9	0	0		18	3631.734337	1.210578112
10	0	0		18	3613.734337	1.204578112
11	0	0		18	3595.734337	1.198578112
12	0	0		18	3577.734337	1.192578112
13	0	0		18	3559.734337	1.186578112
14	0	0		18	3541.734337	1.180578112
15	0	0		18	3523.734337	1.174578112
16	0	0		18	3505.734337	1.168578112
17	0	0		18	3487.734337	1.162578112
18	0	0		18	3469.734337	1.156578112
19	0	0		18	3451.734337	1.150578112
20	0	0		18	3433.734337	1.144578112
21	0	0		18	3415.734337	1.138578112
22	0	0		18	3397.734337	1.132578112
23	0	0		18	3379.734337	1.126578112
24	0	0		18	3361.734337	1.120578112
25	0	0		18	3343.734337	1.114578112
26	0	0		18	3325.734337	1.108578112
27	0	0		18	3307.734337	1.102578112
28	0	0		18	3289.734337	1.096578112
29	0	0		18	3271.734337	1.090578112
30	33	459.6515055		0	3731.385842	1.243795281
31	0	0		0	3731.385842	1.243795281
November						
1	0	0		0	3731.385842	1.243795281
2	43	598.9398405		0	4330.325683	1.443441894
3	0	0		0	4330.325683	1.443441894
4	0	0		0	4330.325683	1.443441894
5	0	0		0	4330.325683	1.443441894
6	0	0		18	4312.325683	1.437441894
7	4	55.715334		0	4368.041017	1.456013672
8	0	0		0	4368.041017	1.456013672
9	0	0		0	4368.041017	1.456013672
10	0	0		0	4368.041017	1.456013672



11	24	334.292004		0	4702.333021	1.56744434
12	0	0		0	4702.333021	1.56744434
13	0	0		0	4702.333021	1.56744434
14	0	0		0	4702.333021	1.56744434
15	0	0		18	4684.333021	1.56144434
16	0	0		18	4666.333021	1.55544434
17	0	0		18	4648.333021	1.54944434
18	0	0		18	4630.333021	1.54344434
19	0	0		18	4612.333021	1.53744434
20	75	1044.662513		0	5656.995533	1.885665178
21	0	0		0	5656.995533	1.885665178
22	0	0		0	5656.995533	1.885665178
23	0	0		0	5656.995533	1.885665178
24	0	0		18	5638.995533	1.879665178
25	22	306.434337		0	5945.42987	1.981809957
26	35	487.5091725		0	6432.939043	2.144313014
27	0	0		0	6432.939043	2.144313014
28	0	0		0	6432.939043	2.144313014
29	0	0		0	6432.939043	2.144313014
30	0	0		18	6414.939043	2.138313014
Desember						
1	0	0		18	6396.939043	2.132313014
2	0	0		18	6378.939043	2.126313014
3	0	0		18	6360.939043	2.120313014
4	0	0		18	6342.939043	2.114313014
5	0	0		18	6324.939043	2.108313014
6	0	0		18	6306.939043	2.102313014
7	13	181.0748355		0	6488.013878	2.162671293
8	14	195.003669		0	6683.017547	2.227672516
9	0	0		0	6683.017547	2.227672516
10	30	417.865005		0	7100.882552	2.366960851
11	45	626.7975075	1500	0	6227.68006	2.075893353
12	0	0		0	6227.68006	2.075893353
13	49	682.5128415	1500	0	5410.192901	1.803397634
14	35	487.5091725		0	5897.702074	1.965900691
15	53	738.2281755		0	6635.930249	2.21197675
16	27	376.0785045	1500	0	5512.008754	1.837336251
17	60	835.73001	1500	0	4847.738764	1.615912921
18	0	0		0	4847.738764	1.615912921
19	0	0		0	4847.738764	1.615912921
20	0	0		0	4847.738764	1.615912921
21	0	0		18	4829.738764	1.609912921
22	0	0		18	4811.738764	1.603912921
23	0	0		18	4793.738764	1.597912921
24	0	0		18	4775.738764	1.591912921
25	0	0		18	4757.738764	1.585912921
26	0	0		18	4739.738764	1.579912921
27	20	278.57667		0	5018.315434	1.672771811
28	60	835.73001		0	5854.045444	1.951348481
29	0	0		0	5854.045444	1.951348481
30	0	0		0	5854.045444	1.951348481
31	24	334.292004		0	6188.337448	2.062779149

**TAMAN ALUMNI ITS**

<b>TANGGAL</b>	<b>R (mm)</b>	<b>Vol. I(m3)</b>	<b>Vol O 1</b>	<b>Vol O(m3)</b>	<b>DS(m3)</b>	<b>tinggi air (m)</b>
<b>Januari</b>	<b>R (mm)</b>					
1	5	52.758013		0	2217.464174	0.739154725
2	0	0		0	2217.464174	0.739154725
3	0	0		0	2217.464174	0.739154725
4	0	0		0	2217.464174	0.739154725
5	0	0		18	2199.464174	0.733154725
6	35	369.30609		0	2568.770261	0.856256754
7	52	548.68333		0	3117.453591	1.039151197
8	9	94.964423		0	3212.418014	1.070806005
9	0	0		0	3212.418014	1.070806005
10	34	358.75449		0	3571.172499	1.190390833
11	5	52.758013		0	3623.930511	1.207976837
12	6	63.309615		0	3687.240126	1.229080042
13	0	0		0	3687.240126	1.229080042
14	0	0		0	3687.240126	1.229080042
15	0	0		0	3687.240126	1.229080042
16	0	0		18	3669.240126	1.223080042
17	0	0		18	3651.240126	1.217080042
18	0	0		18	3633.240126	1.211080042
19	0	0		18	3615.240126	1.205080042
20	0	0		18	3597.240126	1.199080042
21	0	0		18	3579.240126	1.193080042
22	0	0		18	3561.240126	1.187080042
23	0	0		18	3543.240126	1.181080042
24	0	0		18	3525.240126	1.175080042
25	0	0		18	3507.240126	1.169080042
26	0	0		18	3489.240126	1.163080042
27	6	63.309615		0	3552.549741	1.184183247
28	2	21.103205		0	3573.652946	1.191217649
29	15	158.27404		0	3731.926984	1.243975661
30	0	0		0	3731.926984	1.243975661
31	0	0		0	3731.926984	1.243975661
<b>Februari</b>				<b>216</b>		
1	0	0		0	3731.926984	1.243975661
2	0	0		18	3713.926984	1.237975661
3	0	0		18	3695.926984	1.231975661
4	3	31.654808		0	3727.581791	1.242527264
5	17	179.37724		0	3906.959034	1.302319678
6	0	0		0	3906.959034	1.302319678
7	0	0		0	3906.959034	1.302319678
8	0	0		0	3906.959034	1.302319678
9	9	94.964423		0	4001.923456	1.333974485
10	6	63.309615		0	4065.233071	1.35507769
11	0	0		0	4065.233071	1.35507769
12	0	0		0	4065.233071	1.35507769
13	0	0		0	4065.233071	1.35507769
14	0	0		18	4047.233071	1.34907769
15	0	0		18	4029.233071	1.34307769
16	0	0		18	4011.233071	1.33707769
17	4	42.20641		0	4053.439481	1.351146494
18	2	21.103205		0	4074.542686	1.358180895
19	0	0		0	4074.542686	1.358180895
20	0	0		0	4074.542686	1.358180895
21	0	0		0	4074.542686	1.358180895
22	30	316.54808		0	4391.090761	1.46369692
23	20	211.03205		0	4602.122811	1.534040937
24	35	369.30609		0	4971.428899	1.657142966
25	41	432.6157		0	5404.044601	1.8013482
26	37	390.40929		0	5794.453894	1.931484631
27	0	0		0	5794.453894	1.931484631
28	10	105.51603		0	5899.969919	1.96665664
<b>Maret</b>				<b>90</b>		
1	12	126.61923		0	6026.589149	2.00886305
2	31	327.09968		0	6353.688826	2.117896275
3	35	369.30609	1000	0	5722.994914	1.907664971
4	35	369.30609		0	6092.301001	2.030767
5	39	411.5125		0	6503.813499	2.167937833
6	0	0		0	6503.813499	2.167937833
7	13	137.17083		0	6640.984331	2.213661444
8	0	0		0	6640.984331	2.213661444
9	11	116.06763		0	6757.051959	2.252350653
10	24	253.23846	1000	0	6010.290419	2.00343014

11	53	559.23493		0	6569.525351	2.189841784
12	0	0		0	6569.525351	2.189841784
13	31	327.09968		0	6896.625029	2.29887501
14	37	390.40929	1000	0	6287.034321	2.095678107
15	42	443.16731		18	6712.201626	2.237400542
16	0	0		0	6712.201626	2.237400542
17	0	0		0	6712.201626	2.237400542
18	15	158.27404		0	6870.475664	2.290158555
19	20	211.03205	1000	0	6081.507714	2.027169238
20	0	0		18	6063.507714	2.021169238
21	15	158.27404		0	6221.781751	2.07392725
22	0	0		0	6221.781751	2.07392725
23	0	0		0	6221.781751	2.07392725
24	0	0		0	6221.781751	2.07392725
25	0	0		18	6203.781751	2.06792725
26	0	0		18	6185.781751	2.06192725
27	0	0		18	6167.781751	2.05592725
28	20	211.03205		0	6378.813801	2.126271267
29	0	0		0	6378.813801	2.126271267
30	15	158.27404	1000	0	5537.087839	1.845695946
31	0	0		0	5537.087839	1.845695946
April				90		
1	0	0		0	5537.087839	1.845695946
2	0	0		0	5537.087839	1.845695946
3	0	0		18	5519.087839	1.839695946
4	0	0		18	5501.087839	1.833695946
5	0	0		18	5483.087839	1.827695946
6	0	0		18	5465.087839	1.821695946
7	0	0		18	5447.087839	1.815695946
8	0	0		18	5429.087839	1.809695946
9	0	0		18	5411.087839	1.803695946
10	4	42.20641		0	5453.294249	1.81776475
11	0	0		0	5453.294249	1.81776475
12	0	0		0	5453.294249	1.81776475
13	9	94.964423		0	5548.258671	1.849419557
14	0	0		0	5548.258671	1.849419557
15	0	0		0	5548.258671	1.849419557
16	0	0		0	5548.258671	1.849419557
17	0	0		18	5530.258671	1.843419557
18	0	0		18	5512.258671	1.837419557
19	0	0		18	5494.258671	1.831419557
20	0	0		18	5476.258671	1.825419557
21	0	0		18	5458.258671	1.819419557
22	0	0		18	5440.258671	1.813419557
23	0	0		18	5422.258671	1.807419557
24	0	0		18	5404.258671	1.801419557
25	0	0		18	5386.258671	1.795419557
26	21	221.58365		0	5607.842324	1.869280775
27	0	0		0	5607.842324	1.869280775
28	0	0		0	5607.842324	1.869280775
29	0	0		0	5607.842324	1.869280775
30	0	0		18	5589.842324	1.863280775

Mei				306		
1	0	0		18	5571.842324	1.857280775
2	0	0		18	5553.842324	1.851280775
3	0	0		18	5535.842324	1.845280775
4	0	0		18	5517.842324	1.839280775
5	0	0		18	5499.842324	1.833280775
6	0	0		18	5481.842324	1.827280775
7	0	0		18	5463.842324	1.821280775
8	0	0		18	5445.842324	1.815280775
9	0	0		18	5427.842324	1.809280775
10	0	0		18	5409.842324	1.803280775
11	0	0		18	5391.842324	1.797280775
12	0	0		18	5373.842324	1.791280775
13	0	0		18	5355.842324	1.785280775
14	0	0		18	5337.842324	1.779280775
15	0	0		18	5319.842324	1.773280775
16	12	126.61923		0	5446.461554	1.815487185
17	36	379.85769		0	5826.319244	1.942106415
18	0	0		0	5826.319244	1.942106415
19	0	0		0	5826.319244	1.942106415
20	0	0		0	5826.319244	1.942106415
21	0	0		18	5808.319244	1.936106415
22	0	0		18	5790.319244	1.930106415
23	0	0		18	5772.319244	1.924106415
24	0	0		18	5754.319244	1.918106415
25	0	0		18	5736.319244	1.912106415
26	9	94.964423		0	5831.283666	1.943761222
27	0	0		0	5831.283666	1.943761222
28	0	0		0	5831.283666	1.943761222
29	0	0		0	5831.283666	1.943761222
30	7	73.861218		0	5905.144884	1.968381628
31	0	0		0	5905.144884	1.968381628
Juni				360		
1	0	0		0	5905.144884	1.968381628
2	0	0		0	5905.144884	1.968381628
3	0	0		18	5887.144884	1.962381628
4	0	0		18	5869.144884	1.956381628
5	0	0		18	5851.144884	1.950381628
6	0	0		18	5833.144884	1.944381628
7	0	0		18	5815.144884	1.938381628
8	0	0		18	5797.144884	1.932381628
9	0	0		18	5779.144884	1.926381628
10	0	0		18	5761.144884	1.920381628
11	45	474.82211		18	6217.966996	2.072655665
12	0	0		18	6199.966996	2.066655665
13	0	0		18	6181.966996	2.060655665
14	0	0		18	6163.966996	2.054655665
15	0	0		18	6145.966996	2.048655665
16	0	0		18	6127.966996	2.042655665
17	0	0		18	6109.966996	2.036655665
18	0	0		18	6091.966996	2.030655665
19	0	0		18	6073.966996	2.024655665
20	0	0		18	6055.966996	2.018655665
21	0	0		18	6037.966996	2.012655665
22	0	0		18	6019.966996	2.006655665
23	0	0		18	6001.966996	2.000655665
24	0	0		18	5983.966996	1.994655665
25	0	0		18	5965.966996	1.988655665
26	0	0		18	5947.966996	1.982655665
27	0	0		18	5929.966996	1.976655665
28	0	0		18	5911.966996	1.970655665
29	0	0		18	5893.966996	1.964655665
30	0	0		18	5875.966996	1.958655665
Juli				504		
1	0	0		18	5857.966996	1.952655665
2	0	0		18	5839.966996	1.946655665
3	0	0		18	5821.966996	1.940655665
4	0	0		18	5803.966996	1.934655665
5	0	0		18	5785.966996	1.928655665
6	0	0		18	5767.966996	1.922655665
7	0	0		18	5749.966996	1.916655665
8	0	0		18	5731.966996	1.910655665
9	0	0		18	5713.966996	1.904655665
10	0	0		18	5695.966996	1.898655665

11	0	0		18	5677.966996	1.892655665
12	0	0		18	5659.966996	1.886655665
13	0	0		18	5641.966996	1.880655665
14	0	0		18	5623.966996	1.874655665
15	0	0		18	5605.966996	1.868655665
16	0	0		18	5587.966996	1.862655665
17	0	0		18	5569.966996	1.856655665
18	0	0		18	5551.966996	1.850655665
19	0	0		18	5533.966996	1.844655665
20	0	0		18	5515.966996	1.838655665
21	0	0		18	5497.966996	1.832655665
22	0	0		18	5479.966996	1.826655665
23	0	0		18	5461.966996	1.820655665
24	0	0		18	5443.966996	1.814655665
25	0	0		18	5425.966996	1.808655665
26	0	0		18	5407.966996	1.802655665
27	0	0		18	5389.966996	1.796655665
28	0	0		18	5371.966996	1.790655665
29	0	0		18	5353.966996	1.784655665
30	0	0		18	5335.966996	1.778655665
31	0	0		18	5317.966996	1.772655665
Agustus				558		
1	0	0		18	5299.966996	1.766655665
2	0	0		18	5281.966996	1.760655665
3	0	0		18	5263.966996	1.754655665
4	0	0		18	5245.966996	1.748655665
5	0	0		18	5227.966996	1.742655665
6	0	0		18	5209.966996	1.736655665
7	0	0		18	5191.966996	1.730655665
8	0	0		18	5173.966996	1.724655665
9	0	0		18	5155.966996	1.718655665
10	0	0		18	5137.966996	1.712655665
11	0	0		18	5119.966996	1.706655665
12	0	0		18	5101.966996	1.700655665
13	0	0		18	5083.966996	1.694655665
14	0	0		18	5065.966996	1.688655665
15	0	0		18	5047.966996	1.682655665
16	0	0		18	5029.966996	1.676655665
17	0	0		18	5011.966996	1.670655665
18	0	0		18	4993.966996	1.664655665
19	0	0		18	4975.966996	1.658655665
20	0	0		18	4957.966996	1.652655665
21	0	0		18	4939.966996	1.646655665
22	0	0		18	4921.966996	1.640655665
23	0	0		18	4903.966996	1.634655665
24	0	0		18	4885.966996	1.628655665
25	0	0		18	4867.966996	1.622655665
26	0	0		18	4849.966996	1.616655665
27	0	0		18	4831.966996	1.610655665
28	0	0		18	4813.966996	1.604655665
29	0	0		18	4795.966996	1.598655665
30	0	0		18	4777.966996	1.592655665
31	0	0		18	4759.966996	1.586655665

September				558		
1	0	0		18	4741.966996	1.580655665
2	0	0		18	4723.966996	1.574655665
3	0	0		18	4705.966996	1.568655665
4	0	0		18	4687.966996	1.562655665
5	0	0		18	4669.966996	1.556655665
6	0	0		18	4651.966996	1.550655665
7	0	0		18	4633.966996	1.544655665
8	0	0		18	4615.966996	1.538655665
9	0	0		18	4597.966996	1.532655665
10	0	0		18	4579.966996	1.526655665
11	0	0		18	4561.966996	1.520655665
12	0	0		18	4543.966996	1.514655665
13	0	0		18	4525.966996	1.508655665
14	0	0		18	4507.966996	1.502655665
15	0	0		18	4489.966996	1.496655665
16	0	0		18	4471.966996	1.490655665
17	0	0		18	4453.966996	1.484655665
18	0	0		18	4435.966996	1.478655665
19	0	0		18	4417.966996	1.472655665
20	0	0		18	4399.966996	1.466655665
21	0	0		18	4381.966996	1.460655665
22	0	0		18	4363.966996	1.454655665
23	0	0		18	4345.966996	1.448655665
24	0	0		18	4327.966996	1.442655665
25	0	0		18	4309.966996	1.436655665
26	0	0		18	4291.966996	1.430655665
27	0	0		18	4273.966996	1.424655665
28	0	0		18	4255.966996	1.418655665
29	0	0		18	4237.966996	1.412655665
30	0	0		18	4219.966996	1.406655665
Oktober				540		
1	0	0		18	4201.966996	1.400655665
2	0	0		18	4183.966996	1.394655665
3	0	0		18	4165.966996	1.388655665
4	0	0		18	4147.966996	1.382655665
5	0	0		18	4129.966996	1.376655665
6	0	0		18	4111.966996	1.370655665
7	0	0		18	4093.966996	1.364655665
8	0	0		18	4075.966996	1.358655665
9	0	0		18	4057.966996	1.352655665
10	0	0		18	4039.966996	1.346655665
11	0	0		18	4021.966996	1.340655665
12	0	0		18	4003.966996	1.334655665
13	0	0		18	3985.966996	1.328655665
14	0	0		18	3967.966996	1.322655665
15	0	0		18	3949.966996	1.316655665
16	0	0		18	3931.966996	1.310655665
17	0	0		18	3913.966996	1.304655665
18	0	0		18	3895.966996	1.298655665
19	0	0		18	3877.966996	1.292655665
20	0	0		18	3859.966996	1.286655665
21	0	0		18	3841.966996	1.280655665
22	0	0		18	3823.966996	1.274655665
23	0	0		18	3805.966996	1.268655665
24	0	0		18	3787.966996	1.262655665
25	0	0		18	3769.966996	1.256655665
26	0	0		18	3751.966996	1.250655665
27	0	0		18	3733.966996	1.244655665
28	0	0		18	3715.966996	1.238655665
29	0	0		18	3697.966996	1.232655665
30	0	0		18	3679.966996	1.226655665
31	0	0		18	3661.966996	1.220655665
November				558		
1	0	0		18	3643.966996	1.214655665
2	0	0		18	3625.966996	1.208655665
3	0	0		18	3607.966996	1.202655665
4	0	0		18	3589.966996	1.196655665
5	0	0		18	3571.966996	1.190655665
6	0	0		18	3553.966996	1.184655665
7	0	0		18	3535.966996	1.178655665
8	0	0		18	3517.966996	1.172655665
9	0	0		18	3499.966996	1.166655665
10	0	0		18	3481.966996	1.160655665

11	0	0		18	3463.966996	1.154655665
12	0	0		18	3445.966996	1.148655665
13	0	0		18	3427.966996	1.142655665
14	0	0		18	3409.966996	1.136655665
15	0	0		18	3391.966996	1.130655665
16	0	0		18	3373.966996	1.124655665
17	0	0		18	3355.966996	1.118655665
18	0	0		18	3337.966996	1.112655665
19	0	0		18	3319.966996	1.106655665
20	0	0		18	3301.966996	1.100655665
21	0	0		18	3283.966996	1.094655665
22	0	0		18	3265.966996	1.088655665
23	0	0		18	3247.966996	1.082655665
24	0	0		18	3229.966996	1.076655665
25	0	0		18	3211.966996	1.070655665
26	15	158.27404		0	3370.241034	1.123413678
27	43	453.71891		0	3823.959941	1.274653314
28	14	147.72244		0	3971.682376	1.323894125
29	0	0		0	3971.682376	1.323894125
30	0	0		0	3971.682376	1.323894125
Desember				450		
1	0	0		0	3971.682376	1.323894125
2	10	105.51603		0	4077.198401	1.359066134
3	15	158.27404		0	4235.472439	1.411824146
4	0	0		0	4235.472439	1.411824146
5	0	0		0	4235.472439	1.411824146
6	13	137.17083		0	4372.643271	1.457547757
7	0	0		0	4372.643271	1.457547757
8	0	0		0	4372.643271	1.457547757
9	0	0		0	4372.643271	1.457547757
10	17	179.37724		0	4552.020514	1.517340171
11	0	0		0	4552.020514	1.517340171
12	17	179.37724		0	4731.397756	1.577132585
13	0	0		0	4731.397756	1.577132585
14	0	0		0	4731.397756	1.577132585
15	10	105.51603		0	4836.913781	1.612304594
16	0	0		0	4836.913781	1.612304594
17	0	0		0	4836.913781	1.612304594
18	0	0		0	4836.913781	1.612304594
19	0	0		18	4818.913781	1.606304594
20	0	0		18	4800.913781	1.600304594
21	0	0		18	4782.913781	1.594304594
22	11	116.06763		0	4898.981409	1.632993803
23	0	0		0	4898.981409	1.632993803
24	0	0		0	4898.981409	1.632993803
25	58	611.99295		0	5510.974354	1.836991451
26	0	0		0	5510.974354	1.836991451
27	0	0		0	5510.974354	1.836991451
28	0	0		0	5510.974354	1.836991451
29	40	422.0641		0	5933.038454	1.977679485
30	0	0		0	5933.038454	1.977679485
31	0	0		0	5933.038454	1.977679485

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	125.3595015		0	6313.696949	2.10456565
2	0	0		0	6313.696949	2.10456565
3	6	83.573001		0	6397.26995	2.132423317
4	0	0		0	6397.26995	2.132423317
5	10	139.288335		0	6536.558285	2.178852762
6	0	0		0	6536.558285	2.178852762
7	0	0		0	6536.558285	2.178852762
8	0	0		0	6536.558285	2.178852762
9	120	1671.46002	1500	0	6708.018305	2.236006102
10	9	125.3595015		0	6833.377807	2.277792602
11	0	0		0	6833.377807	2.277792602
12	12	167.146002		0	7000.523809	2.333507936
13	60	835.73001	1500	0	6336.253819	2.112084606
14	0	0		18	6318.253819	2.106084606
15	0	0		18	6300.253819	2.100084606
16	0	0		18	6282.253819	2.094084606
17	21	292.5055035		0	6574.759322	2.191586441
18	0	0		0	6574.759322	2.191586441
19	0	0		0	6574.759322	2.191586441
20	0	0		0	6574.759322	2.191586441
21	10	139.288335		0	6714.047657	2.238015886
22	0	0		0	6714.047657	2.238015886
23	0	0		0	6714.047657	2.238015886
24	0	0		0	6714.047657	2.238015886
25	0	0		18	6696.047657	2.232015886
26	0	0		18	6678.047657	2.226015886
27	0	0		18	6660.047657	2.220015886
28	0	0		18	6642.047657	2.214015886
29	0	0		18	6624.047657	2.208015886
30	0	0		18	6606.047657	2.202015886
31	81	1128.235514	1500	0	6234.283171	2.07809439
Februari						
1	0	0		0	6234.283171	2.07809439
2	24	334.292004		0	6568.575175	2.189525058
3	26	362.149671	1500	0	5430.724846	1.810241615
4	0	0		0	5430.724846	1.810241615
5	26	362.149671		0	5792.874517	1.930958172
6	0	0		0	5792.874517	1.930958172
7	0	0		0	5792.874517	1.930958172
8	0	0		0	5792.874517	1.930958172
9	15	208.9325025		0	6001.807019	2.00060234
10	0	0		0	6001.807019	2.00060234
11	0	0		0	6001.807019	2.00060234
12	0	0		0	6001.807019	2.00060234
13	0	0		18	5983.807019	1.99460234
14	0	0		18	5965.807019	1.98860234
15	35	487.5091725		0	6453.316192	2.151105397
16	50	696.441675	1500	0	5649.757867	1.883252622
17	0	0		0	5649.757867	1.883252622
18	0	0		0	5649.757867	1.883252622
19	0	0		0	5649.757867	1.883252622
20	18	250.719003		0	5900.47687	1.966825623
21	15	208.9325025		0	6109.409372	2.036469791
22	30	417.865005		0	6527.274377	2.175758126
23	15	208.9325025		0	6736.20688	2.245402293
24	12	167.146002		0	6903.352882	2.301117627
25	20	278.57667		0	7181.929552	2.393976517
26	21	292.5055035		0	7474.435055	2.491478352
27	50	696.441675	1500	0	6670.87673	2.223625577
28	16	222.861336		0	6893.738066	2.297912689
Maret						
1	16	222.861336		0	7116.599402	2.372199801
2	0	0		0	7116.599402	2.372199801
3	19	264.6478365		0	7381.247239	2.460415746
4	5	69.6441675		0	7450.891406	2.483630469
5	20	278.57667	1500	0	6229.468076	2.076489359
6	22	306.434337		0	6535.902413	2.178634138
7	0	0		0	6535.902413	2.178634138
8	0	0		18	6517.902413	2.172634138
9	0	0		18	6499.902413	2.166634138



10	48	668.584008	1500	0	5668.486421	1.889495474
11	0	0		0	5668.486421	1.889495474
12	84	1170.022014		0	6838.508435	2.279502812
13	0	0		0	6838.508435	2.279502812
14	0	0		0	6838.508435	2.279502812
15	0	0		0	6838.508435	2.279502812
16	0	0		18	6820.508435	2.273502812
17	73	1016.804846	1500	0	6337.313281	2.11243776
18	0	0		0	6337.313281	2.11243776
19	0	0		0	6337.313281	2.11243776
20	8	111.430668		0	6448.743949	2.149581316
21	0	0		18	6430.743949	2.143581316
22	0	0		18	6412.743949	2.137581316
23	0	0		18	6394.743949	2.131581316
24	0	0		18	6376.743949	2.125581316
25	0	0		18	6358.743949	2.119581316
26	0	0		18	6340.743949	2.113581316
27	0	0		18	6322.743949	2.107581316
28	0	0		18	6304.743949	2.101581316
29	0	0		18	6286.743949	2.095581316
30	20	278.57667		0	6565.320619	2.188440206
31	5	69.6441675		0	6634.964786	2.211654929
April						
1	10	139.288335		0	6774.253121	2.258084374
2	0	0		0	6774.253121	2.258084374
3	0	0		0	6774.253121	2.258084374
4	0	0		0	6774.253121	2.258084374
5	0	0		18	6756.253121	2.252084374
6	5	69.6441675		0	6825.897289	2.275299096
7	0	0		0	6825.897289	2.275299096
8	0	0		0	6825.897289	2.275299096
9	0	0		0	6825.897289	2.275299096
10	0	0		18	6807.897289	2.269299096
11	0	0		18	6789.897289	2.263299096
12	0	0		18	6771.897289	2.257299096
13	0	0		18	6753.897289	2.251299096
14	0	0		18	6735.897289	2.245299096
15	0	0		18	6717.897289	2.239299096
16	0	0		18	6699.897289	2.233299096
17	0	0		18	6681.897289	2.227299096
18	0	0		18	6663.897289	2.221299096
19	0	0		18	6645.897289	2.215299096
20	0	0		18	6627.897289	2.209299096
21	10	139.288335		0	6767.185624	2.255728541
22	15	208.9325025		0	6976.118126	2.325372709
23	0	0		0	6976.118126	2.325372709
24	0	0		0	6976.118126	2.325372709
25	0	0		0	6976.118126	2.325372709
26	0	0		18	6958.118126	2.319372709
27	0	0		18	6940.118126	2.313372709
28	10	139.288335		0	7079.406461	2.359802154
29	0	0		0	7079.406461	2.359802154
30	0	0		0	7079.406461	2.359802154

Mei						
1	0	0		0	7079.406461	2.359802154
2	0	0		18	7061.406461	2.353802154
3	0	0		18	7043.406461	2.347802154
4	0	0		18	7025.406461	2.341802154
5	0	0		18	7007.406461	2.335802154
6	0	0		18	6989.406461	2.329802154
7	0	0		18	6971.406461	2.323802154
8	0	0		18	6953.406461	2.317802154
9	0	0		18	6935.406461	2.311802154
10	0	0		18	6917.406461	2.305802154
11	25	348.2208375		0	7265.627299	2.421875766
12	0	0		0	7265.627299	2.421875766
13	23	320.3631705	1500	0	6085.990469	2.02866349
14	0	0		0	6085.990469	2.02866349
15	0	0		0	6085.990469	2.02866349
16	15	208.9325025		0	6294.922972	2.098307657
17	0	0		0	6294.922972	2.098307657
18	21	292.5055035		0	6587.428475	2.195809492
19	0	0		0	6587.428475	2.195809492
20	0	0		0	6587.428475	2.195809492
21	0	0		0	6587.428475	2.195809492
22	0	0		18	6569.428475	2.189809492
23	23	320.3631705		0	6889.791646	2.296597215
24	0	0		0	6889.791646	2.296597215
25	0	0		0	6889.791646	2.296597215
26	0	0		0	6889.791646	2.296597215
27	0	0		18	6871.791646	2.290597215
28	0	0		18	6853.791646	2.284597215
29	0	0		18	6835.791646	2.278597215
30	0	0		18	6817.791646	2.272597215
31	0	0		18	6799.791646	2.266597215
Juni						
1	0	0		18	6781.791646	2.260597215
2	0	0		18	6763.791646	2.254597215
3	0	0		18	6745.791646	2.248597215
4	0	0		18	6727.791646	2.242597215
5	0	0		18	6709.791646	2.236597215
6	0	0		18	6691.791646	2.230597215
7	0	0		18	6673.791646	2.224597215
8	0	0		18	6655.791646	2.218597215
9	0	0		18	6637.791646	2.212597215
10	50	696.441675		0	7334.233321	2.44474444
11	0	0		0	7334.233321	2.44474444
12	0	0		0	7334.233321	2.44474444
13	0	0		0	7334.233321	2.44474444
14	0	0		18	7316.233321	2.43874444
15	0	0		18	7298.233321	2.43274444
16	0	0		18	7280.233321	2.42674444
17	0	0		18	7262.233321	2.42074444
18	0	0		18	7244.233321	2.41474444
19	0	0		18	7226.233321	2.40874444
20	0	0		18	7208.233321	2.40274444
21	0	0		18	7190.233321	2.39674444
22	0	0		18	7172.233321	2.39074444
23	0	0		18	7154.233321	2.38474444
24	0	0		18	7136.233321	2.37874444
25	0	0		18	7118.233321	2.37274444
26	0	0		18	7100.233321	2.36674444
27	0	0		18	7082.233321	2.36074444
28	0	0		18	7064.233321	2.35474444
29	0	0		18	7046.233321	2.34874444
30	0	0		18	7028.233321	2.34274444
Juli						
1	0	0		18	7010.233321	2.33674444
2	0	0		18	6992.233321	2.33074444
3	0	0		18	6974.233321	2.32474444
4	0	0		18	6956.233321	2.31874444
5	0	0		18	6938.233321	2.31274444
6	0	0		18	6920.233321	2.30674444
7	0	0		18	6902.233321	2.30074444
8	0	0		18	6884.233321	2.29474444
9	0	0		18	6866.233321	2.28874444
10	0	0		18	6848.233321	2.28274444

11	0	0		18	6830.233321	2.27674444
12	0	0		18	6812.233321	2.27074444
13	0	0		18	6794.233321	2.26474444
14	0	0		18	6776.233321	2.25874444
15	0	0		18	6758.233321	2.25274444
16	0	0		18	6740.233321	2.24674444
17	0	0		18	6722.233321	2.24074444
18	0	0		18	6704.233321	2.23474444
19	0	0		18	6686.233321	2.22874444
20	0	0		18	6668.233321	2.22274444
21	0	0		18	6650.233321	2.21674444
22	0	0		18	6632.233321	2.21074444
23	0	0		18	6614.233321	2.20474444
24	0	0		18	6596.233321	2.19874444
25	0	0		18	6578.233321	2.19274444
26	0	0		18	6560.233321	2.18674444
27	0	0		18	6542.233321	2.18074444
28	0	0		18	6524.233321	2.17474444
29	0	0		18	6506.233321	2.16874444
30	0	0		18	6488.233321	2.16274444
31	0	0		18	6470.233321	2.15674444
Agustus						
1	0	0		18	6452.233321	2.15074444
2	0	0		18	6434.233321	2.14474444
3	0	0		18	6416.233321	2.13874444
4	0	0		18	6398.233321	2.13274444
5	0	0		18	6380.233321	2.12674444
6	0	0		18	6362.233321	2.12074444
7	0	0		18	6344.233321	2.11474444
8	0	0		18	6326.233321	2.10874444
9	0	0		18	6308.233321	2.10274444
10	0	0		18	6290.233321	2.09674444
11	0	0		18	6272.233321	2.09074444
12	0	0		18	6254.233321	2.08474444
13	0	0		18	6236.233321	2.07874444
14	0	0		18	6218.233321	2.07274444
15	0	0		18	6200.233321	2.06674444
16	0	0		18	6182.233321	2.06074444
17	0	0		18	6164.233321	2.05474444
18	0	0		18	6146.233321	2.04874444
19	0	0		18	6128.233321	2.04274444
20	0	0		18	6110.233321	2.03674444
21	0	0		18	6092.233321	2.03074444
22	0	0		18	6074.233321	2.02474444
23	0	0		18	6056.233321	2.01874444
24	0	0		18	6038.233321	2.01274444
25	0	0		18	6020.233321	2.00674444
26	0	0		18	6002.233321	2.00074444
27	0	0		18	5984.233321	1.99474444
28	0	0		18	5966.233321	1.98874444
29	0	0		18	5948.233321	1.98274444
30	0	0		18	5930.233321	1.97674444
31	0	0		18	5912.233321	1.97074444

September						
1	0	0		18	5894.233321	1.96474444
2	0	0		18	5876.233321	1.95874444
3	0	0		18	5858.233321	1.95274444
4	0	0		18	5840.233321	1.94674444
5	0	0		18	5822.233321	1.94074444
6	0	0		18	5804.233321	1.93474444
7	0	0		18	5786.233321	1.92874444
8	0	0		18	5768.233321	1.92274444
9	0	0		18	5750.233321	1.91674444
10	0	0		18	5732.233321	1.91074444
11	0	0		18	5714.233321	1.90474444
12	0	0		18	5696.233321	1.89874444
13	0	0		18	5678.233321	1.89274444
14	0	0		18	5660.233321	1.88674444
15	0	0		18	5642.233321	1.88074444
16	0	0		18	5624.233321	1.87474444
17	0	0		18	5606.233321	1.86874444
18	0	0		18	5588.233321	1.86274444
19	0	0		18	5570.233321	1.85674444
20	0	0		18	5552.233321	1.85074444
21	0	0		18	5534.233321	1.84474444
22	0	0		18	5516.233321	1.83874444
23	0	0		18	5498.233321	1.83274444
24	0	0		18	5480.233321	1.82674444
25	0	0		18	5462.233321	1.82074444
26	0	0		18	5444.233321	1.81474444
27	0	0		18	5426.233321	1.80874444
28	0	0		18	5408.233321	1.80274444
29	0	0		18	5390.233321	1.79674444
30	0	0		18	5372.233321	1.79074444
Oktober						
1	0	0		18	5354.233321	1.78474444
2	0	0		18	5336.233321	1.77874444
3	0	0		18	5318.233321	1.77274444
4	0	0		18	5300.233321	1.76674444
5	0	0		18	5282.233321	1.76074444
6	0	0		18	5264.233321	1.75474444
7	0	0		18	5246.233321	1.74874444
8	0	0		18	5228.233321	1.74274444
9	0	0		18	5210.233321	1.73674444
10	0	0		18	5192.233321	1.73074444
11	0	0		18	5174.233321	1.72474444
12	0	0		18	5156.233321	1.71874444
13	0	0		18	5138.233321	1.71274444
14	0	0		18	5120.233321	1.70674444
15	0	0		18	5102.233321	1.70074444
16	0	0		18	5084.233321	1.69474444
17	0	0		18	5066.233321	1.68874444
18	0	0		18	5048.233321	1.68274444
19	0	0		18	5030.233321	1.67674444
20	0	0		18	5012.233321	1.67074444
21	0	0		18	4994.233321	1.66474444
22	0	0		18	4976.233321	1.65874444
23	0	0		18	4958.233321	1.65274444
24	0	0		18	4940.233321	1.64674444
25	0	0		18	4922.233321	1.64074444
26	0	0		18	4904.233321	1.63474444
27	0	0		18	4886.233321	1.62874444
28	0	0		18	4868.233321	1.62274444
29	0	0		18	4850.233321	1.61674444
30	0	0		18	4832.233321	1.61074444
31	0	0		18	4814.233321	1.60474444
November						
1	0	0		18	4796.233321	1.59874444
2	0	0		18	4778.233321	1.59274444
3	0	0		18	4760.233321	1.58674444
4	0	0		18	4742.233321	1.58074444
5	0	0		18	4724.233321	1.57474444
6	0	0		18	4706.233321	1.56874444
7	0	0		18	4688.233321	1.56274444
8	0	0		18	4670.233321	1.55674444
9	0	0		18	4652.233321	1.55074444
10	0	0		18	4634.233321	1.54474444

11	0	0		18	4616.233321	1.53874444
12	0	0		18	4598.233321	1.53274444
13	0	0		18	4580.233321	1.52674444
14	0	0		18	4562.233321	1.52074444
15	0	0		18	4544.233321	1.51474444
16	0	0		18	4526.233321	1.50874444
17	0	0		18	4508.233321	1.50274444
18	0	0		18	4490.233321	1.49674444
19	0	0		18	4472.233321	1.49074444
20	0	0		18	4454.233321	1.48474444
21	0	0		18	4436.233321	1.47874444
22	0	0		18	4418.233321	1.47274444
23	0	0		18	4400.233321	1.46674444
24	0	0		18	4382.233321	1.46074444
25	0	0		18	4364.233321	1.45474444
26	0	0		18	4346.233321	1.44874444
27	0	0		18	4328.233321	1.44274444
28	0	0		18	4310.233321	1.43674444
29	0	0		18	4292.233321	1.43074444
30	0	0		18	4274.233321	1.42474444
Desember						
1	0	0		18	4256.233321	1.41874444
2	0	0		18	4238.233321	1.41274444
3	0	0		18	4220.233321	1.40674444
4	0	0		18	4202.233321	1.40074444
5	0	0		18	4184.233321	1.39474444
6	0	0		18	4166.233321	1.38874444
7	0	0		18	4148.233321	1.38274444
8	0	0		18	4130.233321	1.37674444
9	0	0		18	4112.233321	1.37074444
10	0	0		18	4094.233321	1.36474444
11	0	0		18	4076.233321	1.35874444
12	0	0		18	4058.233321	1.35274444
13	0	0		18	4040.233321	1.34674444
14	0	0		18	4022.233321	1.34074444
15	0	0		18	4004.233321	1.33474444
16	0	0		18	3986.233321	1.32874444
17	0	0		18	3968.233321	1.32274444
18	0	0		18	3950.233321	1.31674444
19	0	0		18	3932.233321	1.31074444
20	0	0		18	3914.233321	1.30474444
21	0	0		18	3896.233321	1.29874444
22	0	0		18	3878.233321	1.29274444
23	0	0		18	3860.233321	1.28674444
24	0	0		18	3842.233321	1.28074444
25	0	0		18	3824.233321	1.27474444
26	0	0		18	3806.233321	1.26874444
27	0	0		18	3788.233321	1.26274444
28	0	0		18	3770.233321	1.25674444
29	0	0		18	3752.233321	1.25074444
30	0	0		18	3734.233321	1.24474444
31	0	0		18	3716.233321	1.23874444
15000				4716	7474.435055	

**TAMAN ALUMNI ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	<b>Vol. I(m3)</b>	<b>Vol O 1</b>	<b>Vol O(m3)</b>	<b>DS(m3)</b>	<b>tinggi air (m)</b>
1	25	263.79006		0	6196.828516	2.065609505
2	0	0		0	6196.828516	2.065609505
3	0	0		0	6196.828516	2.065609505
4	50	527.58013		0	6724.408641	2.241469547
5	0	0		0	6724.408641	2.241469547
6	12	126.61923		0	6851.027871	2.283675957
7	15	158.27404	1000	0	6009.301909	2.003100636
8	10	105.51603		0	6114.817934	2.038272645
9	0	0		0	6114.817934	2.038272645
10	11	116.06763		0	6230.885561	2.076961854
11	28	295.44487		0	6526.330431	2.175443477
12	0	0		0	6526.330431	2.175443477
13	0	0		0	6526.330431	2.175443477
14	20	211.03205		0	6737.362481	2.245787494
15	10	105.51603		0	6842.878506	2.280959502
16	15	158.27404	1000	0	6001.152544	2.000384181
17	0	0		0	6001.152544	2.000384181
18	0	0		18	5983.152544	1.994384181
19	7	73.861218		18	6039.013761	2.013004587
20	6	63.309615		18	6084.323376	2.028107792
21	0	0		18	6066.323376	2.022107792
22	4	42.20641		18	6090.529786	2.030176595
23	0	0		18	6072.529786	2.024176595
24	0	0		18	6054.529786	2.018176595
25	0	0		18	6036.529786	2.012176595
26	38	400.9609		0	6437.490681	2.145830227
27	5	52.758013		0	6490.248694	2.163416231
28	0	0		0	6490.248694	2.163416231
29	0	0		0	6490.248694	2.163416231
30	0	0		0	6490.248694	2.163416231
31	0	0		18	6472.248694	2.157416231
<b>Februari</b>				<b>162</b>		
1	0	0		18	6454.248694	2.151416231
2	0	0		18	6436.248694	2.145416231
3	28	295.44487		0	6731.693564	2.243897855
4	0	0		0	6731.693564	2.243897855
5	0	0		0	6731.693564	2.243897855
6	0	0		0	6731.693564	2.243897855
7	0	0		18	6713.693564	2.237897855
8	0	0		18	6695.693564	2.231897855
9	35	369.30609	1000	0	6064.999651	2.02166655
10	47	495.92532		0	6560.924969	2.18697499
11	0	0		0	6560.924969	2.18697499
12	0	0		0	6560.924969	2.18697499
13	0	0		0	6560.924969	2.18697499
14	23	242.68686		0	6803.611826	2.267870609
15	0	0		0	6803.611826	2.267870609
16	0	0		0	6803.611826	2.267870609
17	0	0		0	6803.611826	2.267870609
18	0	0		18	6785.611826	2.261870609
19	0	0		18	6767.611826	2.255870609
20	0	0		18	6749.611826	2.249870609
21	38	400.9609	1000	0	6150.572721	2.050190907
22	0	0		0	6150.572721	2.050190907
23	0	0		0	6150.572721	2.050190907
24	10	105.51603		0	6256.088746	2.085362915
25	4	42.20641		0	6298.295156	2.099431719
26	0	0		0	6298.295156	2.099431719
27	0	0		0	6298.295156	2.099431719
28	0	0		0	6298.295156	2.099431719
<b>Maret</b>				<b>126</b>		
1	0	0		18	6280.295156	2.093431719
2	0	0		18	6262.295156	2.087431719
3	20	211.03205		0	6473.327206	2.157775735
4	26	274.34167		0	6747.668871	2.249222957
5	0	0		0	6747.668871	2.249222957
6	20	211.03205		0	6958.700921	2.319566974
7	65	685.85416	1000	0	6644.555084	2.214851695
8	78	823.025	1000	0	6467.580079	2.155860026
9	22	232.13526	1000	0	5699.715334	1.899905111
10	16	168.82564		0	5868.540974	1.956180325

11	0	0		0	5868.540974	1.956180325
12	0	0		0	5868.540974	1.956180325
13	0	0		0	5868.540974	1.956180325
14	0	0		18	5850.540974	1.950180325
15	0	0		18	5832.540974	1.944180325
16	5	52.758013		0	5885.298986	1.961766329
17	0	0		0	5885.298986	1.961766329
18	12	126.61923	1000	0	5011.918216	1.670639405
19	0	0		0	5011.918216	1.670639405
20	0	0		0	5011.918216	1.670639405
21	37	390.40929		0	5402.327509	1.800775836
22	59	622.54455	1000	0	5024.872056	1.674957352
23	0	0		0	5024.872056	1.674957352
24	0	0		0	5024.872056	1.674957352
25	0	0		0	5024.872056	1.674957352
26	0	0		18	5006.872056	1.668957352
27	0	0		18	4988.872056	1.662957352
28	0	0		18	4970.872056	1.656957352
29	0	0		18	4952.872056	1.650957352
30	12	126.61923		0	5079.491286	1.693163762
31	0	0		0	5079.491286	1.693163762
April				144		
1	0	0		0	5079.491286	1.693163762
2	17	179.37724		0	5258.868529	1.752956176
3	0	0		0	5258.868529	1.752956176
4	0	0		0	5258.868529	1.752956176
5	23	242.68686		0	5501.555386	1.833851795
6	0	0		0	5501.555386	1.833851795
7	0	0		0	5501.555386	1.833851795
8	0	0		0	5501.555386	1.833851795
9	0	0		18	5483.555386	1.827851795
10	0	0		18	5465.555386	1.821851795
11	15	158.27404		0	5623.829424	1.874609808
12	0	0		0	5623.829424	1.874609808
13	20	211.03205		0	5834.861474	1.944953825
14	0	0		0	5834.861474	1.944953825
15	0	0		0	5834.861474	1.944953825
16	0	0		0	5834.861474	1.944953825
17	0	0		18	5816.861474	1.938953825
18	0	0		18	5798.861474	1.932953825
19	0	0		18	5780.861474	1.926953825
20	0	0		18	5762.861474	1.920953825
21	0	0		18	5744.861474	1.914953825
22	0	0		18	5726.861474	1.908953825
23	0	0		18	5708.861474	1.902953825
24	0	0		18	5690.861474	1.896953825
25	0	0		18	5672.861474	1.890953825
26	0	0		18	5654.861474	1.884953825
27	0	0		18	5636.861474	1.878953825
28	0	0		18	5618.861474	1.872953825
29	0	0		18	5600.861474	1.866953825
30	5	52.758013		0	5653.619486	1.884539829

Mei				270		
1	0	0		0	5653.619486	1.884539829
2	44	464.27051	1000	0	5117.889996	1.705963332
3	0	0		0	5117.889996	1.705963332
4	0	0		0	5117.889996	1.705963332
5	0	0		0	5117.889996	1.705963332
6	0	0		18	5099.889996	1.699963332
7	20	211.03205		0	5310.922046	1.770307349
8	0	0		0	5310.922046	1.770307349
9	0	0		0	5310.922046	1.770307349
10	0	0		0	5310.922046	1.770307349
11	0	0		18	5292.922046	1.764307349
12	0	0		18	5274.922046	1.758307349
13	0	0		18	5256.922046	1.752307349
14	0	0		18	5238.922046	1.746307349
15	0	0		18	5220.922046	1.740307349
16	0	0		18	5202.922046	1.734307349
17	0	0		18	5184.922046	1.728307349
18	0	0		18	5166.922046	1.722307349
19	0	0		18	5148.922046	1.716307349
20	0	0		18	5130.922046	1.710307349
21	0	0		18	5112.922046	1.704307349
22	0	0		18	5094.922046	1.698307349
23	0	0		18	5076.922046	1.692307349
24	0	0		18	5058.922046	1.686307349
25	0	0		18	5040.922046	1.680307349
26	0	0		18	5022.922046	1.674307349
27	0	0		18	5004.922046	1.668307349
28	0	0		18	4986.922046	1.662307349
29	0	0		18	4968.922046	1.656307349
30	0	0		18	4950.922046	1.650307349
31	0	0		18	4932.922046	1.644307349
Juni				396		
1	0	0		18	4914.922046	1.638307349
2	0	0		18	4896.922046	1.632307349
3	0	0		18	4878.922046	1.626307349
4	0	0		18	4860.922046	1.620307349
5	15	158.27404		0	5019.196084	1.673065361
6	25	263.79006		0	5282.986146	1.760995382
7	30	316.54808	1000	0	4599.534221	1.533178074
8	5	52.758013		0	4652.292234	1.550764078
9	0	0		0	4652.292234	1.550764078
10	0	0		0	4652.292234	1.550764078
11	0	0		0	4652.292234	1.550764078
12	0	0		18	4634.292234	1.544764078
13	0	0		18	4616.292234	1.538764078
14	0	0		18	4598.292234	1.532764078
15	8	84.41282		0	4682.705054	1.560901685
16	0	0		0	4682.705054	1.560901685
17	0	0		0	4682.705054	1.560901685
18	0	0		0	4682.705054	1.560901685
19	0	0		18	4664.705054	1.554901685
20	10	105.51603		0	4770.221079	1.590073693
21	0	0		0	4770.221079	1.590073693
22	15	158.27404		0	4928.495116	1.642831705
23	20	211.03205		0	5139.527166	1.713175722
24	0	0		0	5139.527166	1.713175722
25	0	0		0	5139.527166	1.713175722
26	0	0		0	5139.527166	1.713175722
27	0	0		18	5121.527166	1.707175722
28	0	0		18	5103.527166	1.701175722
29	0	0		18	5085.527166	1.695175722
30	0	0		18	5067.527166	1.689175722
Juli				216		
1	0	0		18	5049.527166	1.683175722
2	0	0		18	5031.527166	1.677175722
3	0	0		18	5013.527166	1.671175722
4	0	0		18	4995.527166	1.665175722
5	0	0		18	4977.527166	1.659175722
6	15	158.27404		0	5135.801204	1.711933735
7	0	0		0	5135.801204	1.711933735
8	0	0		0	5135.801204	1.711933735
9	0	0		0	5135.801204	1.711933735
10	0	0		18	5117.801204	1.705933735



11	20	211.03205		0	5328.833254	1.776277751
12	45	474.82211	1000	0	4803.655366	1.601218455
13	0	0		0	4803.655366	1.601218455
14	0	0		0	4803.655366	1.601218455
15	0	0		0	4803.655366	1.601218455
16	0	0		18	4785.655366	1.595218455
17	0	0		18	4767.655366	1.589218455
18	10	105.51603		0	4873.171391	1.624390464
19	0	0		0	4873.171391	1.624390464
20	0	0		0	4873.171391	1.624390464
21	0	0		0	4873.171391	1.624390464
22	0	0		18	4855.171391	1.618390464
23	0	0		18	4837.171391	1.612390464
24	0	0		18	4819.171391	1.606390464
25	0	0		18	4801.171391	1.600390464
26	0	0		18	4783.171391	1.594390464
27	0	0		18	4765.171391	1.588390464
28	0	0		18	4747.171391	1.582390464
29	0	0		18	4729.171391	1.576390464
30	0	0		18	4711.171391	1.570390464
31	0	0		18	4693.171391	1.564390464
Agustus				324		
1	0	0		18	4675.171391	1.558390464
2	0	0		18	4657.171391	1.552390464
3	20	211.03205		0	4868.203441	1.62273448
4	0	0		0	4868.203441	1.62273448
5	0	0		0	4868.203441	1.62273448
6	0	0		0	4868.203441	1.62273448
7	0	0		18	4850.203441	1.61673448
8	0	0		18	4832.203441	1.61073448
9	0	0		18	4814.203441	1.60473448
10	0	0		18	4796.203441	1.59873448
11	0	0		18	4778.203441	1.59273448
12	0	0		18	4760.203441	1.58673448
13	0	0		18	4742.203441	1.58073448
14	0	0		18	4724.203441	1.57473448
15	0	0		18	4706.203441	1.56873448
16	0	0		18	4688.203441	1.56273448
17	0	0		18	4670.203441	1.55673448
18	0	0		18	4652.203441	1.55073448
19	0	0		18	4634.203441	1.54473448
20	0	0		18	4616.203441	1.53873448
21	0	0		18	4598.203441	1.53273448
22	0	0		18	4580.203441	1.52673448
23	0	0		18	4562.203441	1.52073448
24	0	0		18	4544.203441	1.51473448
25	0	0		18	4526.203441	1.50873448
26	0	0		18	4508.203441	1.50273448
27	0	0		18	4490.203441	1.49673448
28	0	0		18	4472.203441	1.49073448
29	0	0		18	4454.203441	1.48473448
30	0	0		18	4436.203441	1.47873448
31	0	0		18	4418.203441	1.47273448

September				486		
1	0	0		18	4400.203441	1.46673448
2	0	0		18	4382.203441	1.46073448
3	0	0		18	4364.203441	1.45473448
4	0	0		18	4346.203441	1.44873448
5	0	0		18	4328.203441	1.44273448
6	0	0		18	4310.203441	1.43673448
7	0	0		18	4292.203441	1.43073448
8	0	0		18	4274.203441	1.42473448
9	0	0		18	4256.203441	1.41873448
10	0	0		18	4238.203441	1.41273448
11	0	0		18	4220.203441	1.40673448
12	0	0		18	4202.203441	1.40073448
13	0	0		18	4184.203441	1.39473448
14	0	0		18	4166.203441	1.38873448
15	0	0		18	4148.203441	1.38273448
16	0	0		18	4130.203441	1.37673448
17	0	0		18	4112.203441	1.37073448
18	0	0		18	4094.203441	1.36473448
19	0	0		18	4076.203441	1.35873448
20	0	0		18	4058.203441	1.35273448
21	0	0		18	4040.203441	1.34673448
22	0	0		18	4022.203441	1.34073448
23	0	0		18	4004.203441	1.33473448
24	0	0		18	3986.203441	1.32873448
25	0	0		18	3968.203441	1.32273448
26	0	0		18	3950.203441	1.31673448
27	0	0		18	3932.203441	1.31073448
28	0	0		18	3914.203441	1.30473448
29	0	0		18	3896.203441	1.29873448
30	0	0		18	3878.203441	1.29273448
Oktober				540		
1	0	0		18	3860.203441	1.28673448
2	0	0		18	3842.203441	1.28073448
3	0	0		18	3824.203441	1.27473448
4	0	0		18	3806.203441	1.26873448
5	0	0		18	3788.203441	1.26273448
6	0	0		18	3770.203441	1.25673448
7	0	0		18	3752.203441	1.25073448
8	0	0		18	3734.203441	1.24473448
9	0	0		18	3716.203441	1.23873448
10	0	0		18	3698.203441	1.23273448
11	0	0		18	3680.203441	1.22673448
12	0	0		18	3662.203441	1.22073448
13	0	0		18	3644.203441	1.21473448
14	0	0		18	3626.203441	1.20873448
15	0	0		18	3608.203441	1.20273448
16	0	0		18	3590.203441	1.19673448
17	0	0		18	3572.203441	1.19073448
18	18	189.92885		0	3762.132286	1.254044095
19	20	211.03205		0	3973.164336	1.324388112
20	0	0		0	3973.164336	1.324388112
21	0	0		0	3973.164336	1.324388112
22	0	0		0	3973.164336	1.324388112
23	10	105.51603		0	4078.680361	1.35956012
24	0	0		0	4078.680361	1.35956012
25	0	0		0	4078.680361	1.35956012
26	0	0		0	4078.680361	1.35956012
27	0	0		18	4060.680361	1.35356012
28	0	0		18	4042.680361	1.34756012
29	0	0		18	4024.680361	1.34156012
30	0	0		18	4006.680361	1.33556012
31	0	0		18	3988.680361	1.32956012
November				396		
1	0	0		18	3970.680361	1.32356012
2	0	0		18	3952.680361	1.31756012
3	0	0		18	3934.680361	1.31156012
4	0	0		18	3916.680361	1.30556012
5	0	0		18	3898.680361	1.29956012
6	0	0		18	3880.680361	1.29356012
7	0	0		18	3862.680361	1.28756012
8	0	0		18	3844.680361	1.28156012
9	0	0		18	3826.680361	1.27556012
10	0	0		18	3808.680361	1.26956012

11	0	0		18	3790.680361	1.26356012
12	0	0		18	3772.680361	1.25756012
13	0	0		18	3754.680361	1.25156012
14	0	0		18	3736.680361	1.24556012
15	0	0		18	3718.680361	1.23956012
16	0	0		18	3700.680361	1.23356012
17	0	0		18	3682.680361	1.22756012
18	0	0		18	3664.680361	1.22156012
19	0	0		18	3646.680361	1.21556012
20	26	274.34167		0	3921.022026	1.307007342
21	7	73.861218		0	3994.883244	1.331627748
22	0	0		0	3994.883244	1.331627748
23	0	0		0	3994.883244	1.331627748
24	0	0		0	3994.883244	1.331627748
25	0	0		18	3976.883244	1.325627748
26	0	0		18	3958.883244	1.319627748
27	0	0		18	3940.883244	1.313627748
28	0	0		18	3922.883244	1.307627748
29	0	0		18	3904.883244	1.301627748
30	0	0		18	3886.883244	1.295627748
Desember				450		
1	25	263.79006		0	4150.673306	1.383557769
2	20	211.03205		0	4361.705356	1.453901785
3	0	0		0	4361.705356	1.453901785
4	8	84.41282		0	4446.118176	1.482039392
5	0	0		0	4446.118176	1.482039392
6	0	0		0	4446.118176	1.482039392
7	26	274.34167		0	4720.459841	1.573486614
8	10	105.51603		0	4825.975866	1.608658622
9	0	0		0	4825.975866	1.608658622
10	0	0		0	4825.975866	1.608658622
11	0	0		0	4825.975866	1.608658622
12	25	263.79006		0	5089.765929	1.696588643
13	20	211.03205		0	5300.797979	1.76693266
14	0	0		0	5300.797979	1.76693266
15	110	1160.6763	1000	0	5461.474254	1.820491418
16	0	0		0	5461.474254	1.820491418
17	10	105.51603		0	5566.990279	1.855663426
18	0	0		0	5566.990279	1.855663426
19	10	105.51603	1000	0	4672.506304	1.557502101
20	5	52.758013		0	4725.264316	1.575088105
21	20	211.03205		0	4936.296366	1.645432122
22	0	0		0	4936.296366	1.645432122
23	15	158.27404	1000	0	4094.570404	1.364856801
24	0	0		0	4094.570404	1.364856801
25	0	0		0	4094.570404	1.364856801
26	0	0		0	4094.570404	1.364856801
27	10	105.51603		0	4200.086429	1.40002881
28	0	0		0	4200.086429	1.40002881
29	0	0		0	4200.086429	1.40002881
30	0	0		0	4200.086429	1.40002881
31	0	0		18	4182.086429	1.39402881

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	125.3595015		0	3841.592822	1.280530941
2	0	0		0	3841.592822	1.280530941
3	6	83.573001		0	3925.165823	1.308388608
4	0	0		0	3925.165823	1.308388608
5	10	139.288335		0	4064.454158	1.354818053
6	0	0		0	4064.454158	1.354818053
7	0	0		0	4064.454158	1.354818053
8	0	0		0	4064.454158	1.354818053
9	120	1671.46002		0	5735.914178	1.911971393
10	9	125.3595015		0	5861.27368	1.953757893
11	0	0		0	5861.27368	1.953757893
12	12	167.146002		0	6028.419682	2.009473227
13	60	835.73001		0	6864.149692	2.288049897
14	0	0		0	6864.149692	2.288049897
15	0	0		0	6864.149692	2.288049897
16	0	0		0	6864.149692	2.288049897
17	21	292.5055035		18	7138.655195	2.379551732
18	0	0		18	7120.655195	2.373551732
19	0	0		0	7120.655195	2.373551732
20	0	0		0	7120.655195	2.373551732
21	10	139.288335		0	7259.94353	2.419981177
22	0	0		0	7259.94353	2.419981177
23	0	0		0	7259.94353	2.419981177
24	0	0		0	7259.94353	2.419981177
25	0	0		0	7259.94353	2.419981177
26	0	0		0	7259.94353	2.419981177
27	0	0		0	7259.94353	2.419981177
28	0	0		0	7259.94353	2.419981177
29	0	0		0	7259.94353	2.419981177
30	0	0		0	7259.94353	2.419981177
31	81	1128.235514	1500	0	6888.179044	2.296059681
Februari						
1	0	0		0	6888.179044	2.296059681
2	24	334.292004		0	7222.471048	2.407490349
3	26	362.149671	1500	0	6084.620719	2.028206906
4	0	0		0	6084.620719	2.028206906
5	26	362.149671		0	6446.77039	2.148923463
6	0	0		0	6446.77039	2.148923463
7	0	0		0	6446.77039	2.148923463
8	0	0		0	6446.77039	2.148923463
9	15	208.9325025		0	6655.702892	2.218567631
10	0	0		0	6655.702892	2.218567631
11	0	0		0	6655.702892	2.218567631
12	0	0		0	6655.702892	2.218567631
13	0	0		0	6655.702892	2.218567631
14	0	0		0	6655.702892	2.218567631
15	35	487.5091725		0	7143.212065	2.381070688
16	50	696.441675	1500	0	6339.65374	2.113217913
17	0	0		0	6339.65374	2.113217913
18	0	0		0	6339.65374	2.113217913
19	0	0		0	6339.65374	2.113217913
20	18	250.719003	1500	0	5090.372743	1.696790914
21	15	208.9325025		0	5299.305245	1.766435082
22	30	417.865005		0	5717.17025	1.905723417
23	15	208.9325025		0	5926.102753	1.975367584
24	12	167.146002		0	6093.248755	2.031082918
25	20	278.57667		0	6371.825425	2.123941808
26	21	292.5055035		0	6664.330928	2.221443643
27	50	696.441675	1500	0	5860.772603	1.953590868
28	16	222.861336		0	6083.633939	2.02787798
Maret						
1	16	222.861336		0	6306.495275	2.102165092
2	0	0		0	6306.495275	2.102165092
3	19	264.6478365		0	6571.143112	2.190381037
4	5	69.6441675		0	6640.787279	2.21359576
5	20	278.57667		0	6919.363949	2.30645465
6	22	306.434337		0	7225.798286	2.408599429
7	0	0		0	7225.798286	2.408599429
8	0	0		0	7225.798286	2.408599429
9	0	0		0	7225.798286	2.408599429

10	48	668.584008	1500	0	6394.382294	2.131460765
11	0	0		0	6394.382294	2.131460765
12	84	1170.022014	1500	0	6064.404308	2.021468103
13	0	0		0	6064.404308	2.021468103
14	0	0		18	6046.404308	2.015468103
15	0	0		18	6028.404308	2.009468103
16	0	0		18	6010.404308	2.003468103
17	73	1016.804846	1500	18	5509.209154	1.836403051
18	0	0		0	5509.209154	1.836403051
19	0	0		0	5509.209154	1.836403051
20	8	111.430668		0	5620.639822	1.873546607
21	0	0		0	5620.639822	1.873546607
22	0	0		0	5620.639822	1.873546607
23	0	0		0	5620.639822	1.873546607
24	0	0		0	5620.639822	1.873546607
25	0	0		0	5620.639822	1.873546607
26	0	0		0	5620.639822	1.873546607
27	0	0		0	5620.639822	1.873546607
28	0	0		0	5620.639822	1.873546607
29	0	0		0	5620.639822	1.873546607
30	20	278.57667		0	5899.216492	1.966405497
31	5	69.6441675		0	5968.860659	1.98962022
April						
1	10	139.288335		0	6108.148994	2.036049665
2	0	0		0	6108.148994	2.036049665
3	0	0		0	6108.148994	2.036049665
4	0	0		0	6108.148994	2.036049665
5	0	0		0	6108.148994	2.036049665
6	5	69.6441675		0	6177.793162	2.059264387
7	0	0		0	6177.793162	2.059264387
8	0	0		0	6177.793162	2.059264387
9	0	0		0	6177.793162	2.059264387
10	0	0		0	6177.793162	2.059264387
11	0	0		0	6177.793162	2.059264387
12	0	0		0	6177.793162	2.059264387
13	0	0		0	6177.793162	2.059264387
14	0	0		0	6177.793162	2.059264387
15	0	0		0	6177.793162	2.059264387
16	0	0		0	6177.793162	2.059264387
17	0	0		0	6177.793162	2.059264387
18	0	0		0	6177.793162	2.059264387
19	0	0		0	6177.793162	2.059264387
20	0	0		0	6177.793162	2.059264387
21	10	139.288335		0	6317.081497	2.105693832
22	15	208.9325025		0	6526.013999	2.175338
23	0	0		0	6526.013999	2.175338
24	0	0		0	6526.013999	2.175338
25	0	0		0	6526.013999	2.175338
26	0	0		0	6526.013999	2.175338
27	0	0		0	6526.013999	2.175338
28	10	139.288335		0	6665.302334	2.221767445
29	0	0		0	6665.302334	2.221767445
30	0	0		0	6665.302334	2.221767445

Mei						
1	0	0		0	6665.302334	2.221767445
2	0	0		0	6665.302334	2.221767445
3	0	0		0	6665.302334	2.221767445
4	0	0		0	6665.302334	2.221767445
5	0	0		0	6665.302334	2.221767445
6	0	0		0	6665.302334	2.221767445
7	0	0		0	6665.302334	2.221767445
8	0	0		0	6665.302334	2.221767445
9	0	0		0	6665.302334	2.221767445
10	0	0		0	6665.302334	2.221767445
11	25	348.2208375	1500	0	5513.523172	1.837841057
12	0	0		0	5513.523172	1.837841057
13	23	320.3631705		0	5833.886342	1.944628781
14	0	0		0	5833.886342	1.944628781
15	0	0		0	5833.886342	1.944628781
16	15	208.9325025		0	6042.818845	2.014272948
17	0	0		0	6042.818845	2.014272948
18	21	292.5055035		0	6335.324348	2.111774783
19	0	0		0	6335.324348	2.111774783
20	0	0		0	6335.324348	2.111774783
21	0	0		0	6335.324348	2.111774783
22	0	0		0	6335.324348	2.111774783
23	23	320.3631705		0	6655.687519	2.218562506
24	0	0		0	6655.687519	2.218562506
25	0	0		0	6655.687519	2.218562506
26	0	0		0	6655.687519	2.218562506
27	0	0		0	6655.687519	2.218562506
28	0	0		0	6655.687519	2.218562506
29	0	0		18	6637.687519	2.212562506
30	0	0		18	6619.687519	2.206562506
31	0	0		18	6601.687519	2.200562506
Juni						
1	0	0		18	6583.687519	2.194562506
2	0	0		18	6565.687519	2.188562506
3	0	0		18	6547.687519	2.182562506
4	0	0		0	6547.687519	2.182562506
5	0	0		0	6547.687519	2.182562506
6	0	0		0	6547.687519	2.182562506
7	0	0		0	6547.687519	2.182562506
8	0	0		0	6547.687519	2.182562506
9	0	0		0	6547.687519	2.182562506
10	50	696.441675	1500	0	5744.129194	1.914709731
11	0	0		0	5744.129194	1.914709731
12	0	0		0	5744.129194	1.914709731
13	0	0		0	5744.129194	1.914709731
14	0	0		0	5744.129194	1.914709731
15	0	0		18	5726.129194	1.908709731
16	0	0		18	5708.129194	1.902709731
17	0	0		18	5690.129194	1.896709731
18	0	0		18	5672.129194	1.890709731
19	0	0		18	5654.129194	1.884709731
20	0	0		18	5636.129194	1.878709731
21	0	0		18	5618.129194	1.872709731
22	0	0		18	5600.129194	1.866709731
23	0	0		18	5582.129194	1.860709731
24	0	0		18	5564.129194	1.854709731
25	0	0		18	5546.129194	1.848709731
26	0	0		18	5528.129194	1.842709731
27	0	0		18	5510.129194	1.836709731
28	0	0		18	5492.129194	1.830709731
29	0	0		18	5474.129194	1.824709731
30	0	0		18	5456.129194	1.818709731
Juli						
1	0	0		18	5438.129194	1.812709731
2	0	0		18	5420.129194	1.806709731
3	0	0		0	5420.129194	1.806709731
4	0	0		0	5420.129194	1.806709731
5	0	0		0	5420.129194	1.806709731
6	0	0		0	5420.129194	1.806709731
7	0	0		0	5420.129194	1.806709731
8	0	0		0	5420.129194	1.806709731
9	0	0		18	5402.129194	1.800709731
10	0	0		0	5402.129194	1.800709731

11	0	0		0	5402.129194	1.800709731
12	0	0		0	5402.129194	1.800709731
13	0	0		0	5402.129194	1.800709731
14	0	0		0	5402.129194	1.800709731
15	0	0		0	5402.129194	1.800709731
16	0	0		18	5384.129194	1.794709731
17	0	0		18	5366.129194	1.788709731
18	0	0		18	5348.129194	1.782709731
19	0	0		18	5330.129194	1.776709731
20	0	0		18	5312.129194	1.770709731
21	0	0		18	5294.129194	1.764709731
22	0	0		18	5276.129194	1.758709731
23	0	0		18	5258.129194	1.752709731
24	0	0		18	5240.129194	1.746709731
25	0	0		18	5222.129194	1.740709731
26	0	0		18	5204.129194	1.734709731
27	0	0		18	5186.129194	1.728709731
28	0	0		18	5168.129194	1.722709731
29	0	0		18	5150.129194	1.716709731
30	0	0		18	5132.129194	1.710709731
31	0	0		18	5114.129194	1.704709731
Agustus						
1	0	0		18	5096.129194	1.698709731
2	0	0		18	5078.129194	1.692709731
3	0	0		18	5060.129194	1.686709731
4	0	0		18	5042.129194	1.680709731
5	0	0		18	5024.129194	1.674709731
6	0	0		18	5006.129194	1.668709731
7	0	0		18	4988.129194	1.662709731
8	0	0		18	4970.129194	1.656709731
9	0	0		18	4952.129194	1.650709731
10	0	0		18	4934.129194	1.644709731
11	0	0		18	4916.129194	1.638709731
12	0	0		18	4898.129194	1.632709731
13	0	0		18	4880.129194	1.626709731
14	0	0		18	4862.129194	1.620709731
15	0	0		18	4844.129194	1.614709731
16	0	0		18	4826.129194	1.608709731
17	0	0		18	4808.129194	1.602709731
18	0	0		18	4790.129194	1.596709731
19	0	0		18	4772.129194	1.590709731
20	0	0		18	4754.129194	1.584709731
21	0	0		18	4736.129194	1.578709731
22	0	0		18	4718.129194	1.572709731
23	0	0		18	4700.129194	1.566709731
24	0	0		0	4700.129194	1.566709731
25	0	0		0	4700.129194	1.566709731
26	0	0		0	4700.129194	1.566709731
27	0	0		0	4700.129194	1.566709731
28	0	0		18	4682.129194	1.560709731
29	0	0		18	4664.129194	1.554709731
30	0	0		18	4646.129194	1.548709731
31	0	0		18	4628.129194	1.542709731

September						
1	0	0		18	4610.129194	1.536709731
2	0	0		18	4592.129194	1.530709731
3	0	0		18	4574.129194	1.524709731
4	0	0		18	4556.129194	1.518709731
5	0	0		18	4538.129194	1.512709731
6	0	0		0	4538.129194	1.512709731
7	0	0		0	4538.129194	1.512709731
8	0	0		0	4538.129194	1.512709731
9	0	0		0	4538.129194	1.512709731
10	0	0		0	4538.129194	1.512709731
11	0	0		18	4520.129194	1.506709731
12	0	0		0	4520.129194	1.506709731
13	0	0		0	4520.129194	1.506709731
14	0	0		0	4520.129194	1.506709731
15	0	0		0	4520.129194	1.506709731
16	0	0		18	4502.129194	1.500709731
17	0	0		0	4502.129194	1.500709731
18	0	0		18	4484.129194	1.494709731
19	0	0		18	4466.129194	1.488709731
20	0	0		0	4466.129194	1.488709731
21	0	0		0	4466.129194	1.488709731
22	0	0		0	4466.129194	1.488709731
23	0	0		0	4466.129194	1.488709731
24	0	0		0	4466.129194	1.488709731
25	0	0		0	4466.129194	1.488709731
26	0	0		0	4466.129194	1.488709731
27	0	0		0	4466.129194	1.488709731
28	0	0		0	4466.129194	1.488709731
29	0	0		18	4448.129194	1.482709731
30	0	0		18	4430.129194	1.476709731
Oktober						
1	0	0		18	4412.129194	1.470709731
2	0	0		18	4394.129194	1.464709731
3	0	0		18	4376.129194	1.458709731
4	0	0		18	4358.129194	1.452709731
5	0	0		18	4340.129194	1.446709731
6	0	0		18	4322.129194	1.440709731
7	0	0		18	4304.129194	1.434709731
8	0	0		0	4304.129194	1.434709731
9	0	0		0	4304.129194	1.434709731
10	0	0		0	4304.129194	1.434709731
11	0	0		0	4304.129194	1.434709731
12	0	0		0	4304.129194	1.434709731
13	0	0		18	4286.129194	1.428709731
14	0	0		18	4268.129194	1.422709731
15	0	0		0	4268.129194	1.422709731
16	0	0		0	4268.129194	1.422709731
17	0	0		0	4268.129194	1.422709731
18	0	0		0	4268.129194	1.422709731
19	0	0		0	4268.129194	1.422709731
20	0	0		0	4268.129194	1.422709731
21	0	0		18	4250.129194	1.416709731
22	0	0		18	4232.129194	1.410709731
23	0	0		18	4214.129194	1.404709731
24	0	0		18	4196.129194	1.398709731
25	0	0		18	4178.129194	1.392709731
26	0	0		18	4160.129194	1.386709731
27	0	0		18	4142.129194	1.380709731
28	0	0		18	4124.129194	1.374709731
29	0	0		0	4124.129194	1.374709731
30	0	0		0	4124.129194	1.374709731
31	0	0		0	4124.129194	1.374709731
November						
1	0	0		0	4124.129194	1.374709731
2	0	0		0	4124.129194	1.374709731
3	0	0		0	4124.129194	1.374709731
4	0	0		0	4124.129194	1.374709731
5	0	0		0	4124.129194	1.374709731
6	0	0		0	4124.129194	1.374709731
7	0	0		0	4124.129194	1.374709731
8	0	0		0	4124.129194	1.374709731
9	0	0		0	4124.129194	1.374709731
10	0	0		0	4124.129194	1.374709731



11	0	0		0	4124.129194	1.374709731
12	0	0		0	4124.129194	1.374709731
13	0	0		0	4124.129194	1.374709731
14	0	0		0	4124.129194	1.374709731
15	0	0		18	4106.129194	1.368709731
16	0	0		18	4088.129194	1.362709731
17	0	0		18	4070.129194	1.356709731
18	0	0		18	4052.129194	1.350709731
19	0	0		18	4034.129194	1.344709731
20	0	0		0	4034.129194	1.344709731
21	0	0		0	4034.129194	1.344709731
22	0	0		0	4034.129194	1.344709731
23	0	0		0	4034.129194	1.344709731
24	0	0		0	4034.129194	1.344709731
25	0	0		0	4034.129194	1.344709731
26	0	0		0	4034.129194	1.344709731
27	0	0		0	4034.129194	1.344709731
28	0	0		0	4034.129194	1.344709731
29	0	0		18	4016.129194	1.338709731
30	0	0		0	4016.129194	1.338709731
Desember						
1	0	0		0	4016.129194	1.338709731
2	0	0		0	4016.129194	1.338709731
3	0	0		0	4016.129194	1.338709731
4	0	0		0	4016.129194	1.338709731
5	0	0		0	4016.129194	1.338709731
6	0	0		0	4016.129194	1.338709731
7	0	0		0	4016.129194	1.338709731
8	0	0		0	4016.129194	1.338709731
9	0	0		0	4016.129194	1.338709731
10	0	0		0	4016.129194	1.338709731
11	0	0		0	4016.129194	1.338709731
12	0	0		0	4016.129194	1.338709731
13	0	0		0	4016.129194	1.338709731
14	0	0		0	4016.129194	1.338709731
15	0	0		0	4016.129194	1.338709731
16	0	0		0	4016.129194	1.338709731
17	0	0		0	4016.129194	1.338709731
18	0	0		0	4016.129194	1.338709731
19	0	0		0	4016.129194	1.338709731
20	0	0		0	4016.129194	1.338709731
21	0	0		0	4016.129194	1.338709731
22	0	0		0	4016.129194	1.338709731
23	0	0		0	4016.129194	1.338709731
24	0	0		0	4016.129194	1.338709731
25	0	0		0	4016.129194	1.338709731
26	0	0		0	4016.129194	1.338709731
27	0	0		0	4016.129194	1.338709731
28	0	0		0	4016.129194	1.338709731
29	0	0		0	4016.129194	1.338709731
30	0	0		0	4016.129194	1.338709731
31	0	0		18	3998.129194	1.332709731

Atap = 11106.95 m2 c 0.95  
b = 60 m  
l= 50 m  
h= 3 m  
dt = 1 hari

**TAMAN ALUMNI ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	15	158.274038		0	4340.360466	1.446786822
2	20	211.03205		0	4551.392516	1.517130839
3	10	105.516025	1000	0	3656.908541	1.218969514
4	140	1477.22435	1000	0	4134.132891	1.378044297
5	13	137.170833		0	4271.303724	1.423767908
6	25	263.790063	1000	0	3535.093786	1.178364595
7	0	0		0	3535.093786	1.178364595
8	0	0		0	3535.093786	1.178364595
9	0	0		0	3535.093786	1.178364595
10	10	105.516025		0	3640.609811	1.213536604
11	0	0		0	3640.609811	1.213536604
12	20	211.03205		0	3851.641861	1.28388062
13	0	0		0	3851.641861	1.28388062
14	80	844.1282		0	4695.770061	1.565256687
15	0	0		0	4695.770061	1.565256687
16	30	316.548075	1000	0	4012.318136	1.337439379
17	0	0		0	4012.318136	1.337439379
18	0	0		0	4012.318136	1.337439379
19	0	0		0	4012.318136	1.337439379
20	0	0		18	3994.318136	1.331439379
21	0	0		18	3976.318136	1.325439379
22	0	0		18	3958.318136	1.319439379
23	0	0		18	3940.318136	1.313439379
24	0	0		18	3922.318136	1.307439379
25	0	0		18	3904.318136	1.301439379
26	0	0		18	3886.318136	1.295439379
27	0	0		18	3868.318136	1.289439379
28	15	158.274038		0	4026.592174	1.342197391
29	0	0		0	4026.592174	1.342197391
30	0	0		0	4026.592174	1.342197391
31	0	0		0	4026.592174	1.342197391
Februari				144		
1	20	211.03205		0	4237.624224	1.412541408
2	0	0		0	4237.624224	1.412541408
3	0	0		0	4237.624224	1.412541408
4	0	0		0	4237.624224	1.412541408
5	0	0		18	4219.624224	1.406541408
6	27	284.893268		0	4504.517491	1.50150583
7	50	527.580125		0	5032.097616	1.677365872
8	0	0		0	5032.097616	1.677365872
9	30	316.548075	1000	0	4348.645691	1.449548564
10	0	0		0	4348.645691	1.449548564
11	15	158.274038		0	4506.919729	1.502306576
12	6	63.309615		0	4570.229344	1.523409781
13	20	211.03205		0	4781.261394	1.593753798
14	0	0		0	4781.261394	1.593753798
15	0	0		0	4781.261394	1.593753798
16	0	0		0	4781.261394	1.593753798
17	15	158.274038		0	4939.535431	1.64651181
18	20	211.03205	1000	0	4150.567481	1.383522494
19	0	0		0	4150.567481	1.383522494
20	40	422.0641	1000	0	3572.631581	1.190877194
21	15	158.274038		0	3730.905619	1.243635206
22	57	601.441343		0	4332.346961	1.444115654
23	0	0		0	4332.346961	1.444115654
24	0	0		0	4332.346961	1.444115654
25	30	316.548075	1000	0	3648.895036	1.216298345
26	47	495.925318		0	4144.820354	1.381606785
27	5	52.7580125		0	4197.578366	1.399192789
28	27	284.893268		0	4482.471634	1.494157211
Maret				18		
1	47	495.925318		0	4978.396951	1.65946565
2	0	0		0	4978.396951	1.65946565
3	38	400.960895	1000	0	4379.357846	1.459785949
4	0	0		0	4379.357846	1.459785949

5	0	0		0	4379.357846	1.459785949
6	0	0		0	4379.357846	1.459785949
7	40	422.0641		0	4801.421946	1.600473982
8	0	0		0	4801.421946	1.600473982
9	0	0		0	4801.421946	1.600473982
10	0	0		0	4801.421946	1.600473982
11	27	284.893268	1000	0	4086.315214	1.362105071
12	0	0		0	4086.315214	1.362105071
13	0	0		0	4086.315214	1.362105071
14	0	0		0	4086.315214	1.362105071
15	30	316.548075	1000	0	3402.863289	1.134287763
16	0	0		0	3402.863289	1.134287763
17	0	0		0	3402.863289	1.134287763
18	20	211.03205		0	3613.895339	1.20463178
19	45	474.822113		0	4088.717451	1.362905817
20	50	527.580125		0	4616.297576	1.538765859
21	0	0		0	4616.297576	1.538765859
22	0	0		0	4616.297576	1.538765859
23	0	0		0	4616.297576	1.538765859
24	12	126.61923	1000	0	3742.916806	1.247638935
25	0	0		0	3742.916806	1.247638935
26	0	0		0	3742.916806	1.247638935
27	0	0		0	3742.916806	1.247638935
28	45	474.822113		0	4217.738919	1.405912973
29	60	633.09615		0	4850.835069	1.616945023
30	0	0		0	4850.835069	1.616945023
31	0	0		0	4850.835069	1.616945023
April				0		
1	0	0		0	4850.835069	1.616945023
2	0	0		18	4832.835069	1.610945023
3	0	0		18	4814.835069	1.604945023
4	0	0		18	4796.835069	1.598945023
5	0	0		18	4778.835069	1.592945023
6	0	0		18	4760.835069	1.586945023
7	0	0		18	4742.835069	1.580945023
8	0	0		18	4724.835069	1.574945023
9	40	422.0641	1000	0	4146.899169	1.382299723
10	15	158.274038		0	4305.173206	1.435057735
11	0	0		0	4305.173206	1.435057735
12	25	263.790063		0	4568.963269	1.522987756
13	0	0		0	4568.963269	1.522987756
14	0	0		0	4568.963269	1.522987756
15	0	0		0	4568.963269	1.522987756
16	0	0		18	4550.963269	1.516987756
17	12	126.61923		0	4677.582499	1.559194166
18	0	0		0	4677.582499	1.559194166
19	0	0		0	4677.582499	1.559194166
20	0	0		0	4677.582499	1.559194166
21	8	84.41282		0	4761.995319	1.587331773
22	0	0		0	4761.995319	1.587331773
23	0	0		0	4761.995319	1.587331773
24	0	0		0	4761.995319	1.587331773
25	0	0		18	4743.995319	1.581331773
26	0	0		18	4725.995319	1.575331773
27	0	0		18	4707.995319	1.569331773
28	0	0		18	4689.995319	1.563331773
29	0	0		18	4671.995319	1.557331773
30	58	611.992945	1000	0	4283.988264	1.427996088

Mei				234		
1	0	0		0	4283.988264	1.427996088
2	0	0		0	4283.988264	1.427996088
3	0	0		0	4283.988264	1.427996088
4	0	0		18	4265.988264	1.421996088
5	0	0		18	4247.988264	1.415996088
6	0	0		18	4229.988264	1.409996088
7	0	0		18	4211.988264	1.403996088
8	0	0		18	4193.988264	1.397996088
9	0	0		18	4175.988264	1.391996088
10	30	316.548075		0	4492.536339	1.497512113
11	0	0		0	4492.536339	1.497512113
12	0	0		0	4492.536339	1.497512113
13	0	0		0	4492.536339	1.497512113
14	0	0		18	4474.536339	1.491512113
15	0	0		18	4456.536339	1.485512113
16	0	0		18	4438.536339	1.479512113
17	0	0		18	4420.536339	1.473512113
18	0	0		18	4402.536339	1.467512113
19	0	0		18	4384.536339	1.461512113
20	0	0		18	4366.536339	1.455512113
21	0	0		18	4348.536339	1.449512113
22	0	0		18	4330.536339	1.443512113
23	0	0		18	4312.536339	1.437512113
24	0	0		18	4294.536339	1.431512113
25	0	0		18	4276.536339	1.425512113
26	0	0		18	4258.536339	1.419512113
27	0	0		18	4240.536339	1.413512113
28	0	0		18	4222.536339	1.407512113
29	20	211.03205		0	4433.568389	1.47785613
30	0	0		0	4433.568389	1.47785613
31	5	52.7580125		0	4486.326401	1.495442134
Juni				378		
1	5	52.7580125		0	4539.084414	1.513028138
2	0	0		0	4539.084414	1.513028138
3	0	0		0	4539.084414	1.513028138
4	0	0		0	4539.084414	1.513028138
5	0	0		18	4521.084414	1.507028138
6	0	0		18	4503.084414	1.501028138
7	0	0		18	4485.084414	1.495028138
8	0	0		18	4467.084414	1.489028138
9	0	0		18	4449.084414	1.483028138
10	0	0		18	4431.084414	1.477028138
11	0	0		18	4413.084414	1.471028138
12	0	0		18	4395.084414	1.465028138
13	0	0		18	4377.084414	1.459028138
14	0	0		18	4359.084414	1.453028138
15	0	0		18	4341.084414	1.447028138
16	0	0		18	4323.084414	1.441028138
17	0	0		18	4305.084414	1.435028138
18	0	0		18	4287.084414	1.429028138
19	0	0		18	4269.084414	1.423028138
20	0	0		18	4251.084414	1.417028138
21	0	0		18	4233.084414	1.411028138
22	0	0		18	4215.084414	1.405028138
23	0	0		18	4197.084414	1.399028138
24	0	0		18	4179.084414	1.393028138
25	0	0		18	4161.084414	1.387028138
26	0	0		18	4143.084414	1.381028138
27	0	0		18	4125.084414	1.375028138
28	0	0		18	4107.084414	1.369028138
29	0	0		18	4089.084414	1.363028138
30	0	0		18	4071.084414	1.357028138
Juli				468		
1	0	0		18	4053.084414	1.351028138
2	0	0		18	4035.084414	1.345028138
3	0	0		18	4017.084414	1.339028138
4	0	0		18	3999.084414	1.333028138
5	0	0		18	3981.084414	1.327028138
6	0	0		18	3963.084414	1.321028138
7	0	0		18	3945.084414	1.315028138
8	0	0		18	3927.084414	1.309028138
9	0	0		18	3909.084414	1.303028138
10	0	0		18	3891.084414	1.297028138

11	0	0		18	3873.084414	1.291028138
12	0	0		18	3855.084414	1.285028138
13	0	0		18	3837.084414	1.279028138
14	0	0		18	3819.084414	1.273028138
15	0	0		18	3801.084414	1.267028138
16	0	0		18	3783.084414	1.261028138
17	0	0		18	3765.084414	1.255028138
18	0	0		18	3747.084414	1.249028138
19	0	0		18	3729.084414	1.243028138
20	0	0		18	3711.084414	1.237028138
21	0	0		18	3693.084414	1.231028138
22	0	0		18	3675.084414	1.225028138
23	0	0		18	3657.084414	1.219028138
24	0	0		18	3639.084414	1.213028138
25	0	0		18	3621.084414	1.207028138
26	0	0		18	3603.084414	1.201028138
27	0	0		18	3585.084414	1.195028138
28	0	0		18	3567.084414	1.189028138
29	0	0		18	3549.084414	1.183028138
30	0	0		18	3531.084414	1.177028138
31	0	0		18	3513.084414	1.171028138
Agustus				558		
1	0	0		18	3495.084414	1.165028138
2	0	0		18	3477.084414	1.159028138
3	0	0		18	3459.084414	1.153028138
4	0	0		18	3441.084414	1.147028138
5	0	0		18	3423.084414	1.141028138
6	0	0		18	3405.084414	1.135028138
7	0	0		18	3387.084414	1.129028138
8	0	0		18	3369.084414	1.123028138
9	0	0		18	3351.084414	1.117028138
10	0	0		18	3333.084414	1.111028138
11	0	0		18	3315.084414	1.105028138
12	0	0		18	3297.084414	1.099028138
13	0	0		18	3279.084414	1.093028138
14	0	0		18	3261.084414	1.087028138
15	0	0		18	3243.084414	1.081028138
16	0	0		18	3225.084414	1.075028138
17	0	0		18	3207.084414	1.069028138
18	0	0		18	3189.084414	1.063028138
19	0	0		18	3171.084414	1.057028138
20	0	0		18	3153.084414	1.051028138
21	0	0		18	3135.084414	1.045028138
22	0	0		18	3117.084414	1.039028138
23	0	0		18	3099.084414	1.033028138
24	0	0		18	3081.084414	1.027028138
25	0	0		18	3063.084414	1.021028138
26	0	0		18	3045.084414	1.015028138
27	0	0		18	3027.084414	1.009028138
28	0	0		18	3009.084414	1.003028138
29	0	0		18	2991.084414	0.997028138
30	0	0		18	2973.084414	0.991028138
31	0	0		18	2955.084414	0.985028138

September				558		
1	0	0		18	2937.084414	0.979028138
2	0	0		18	2919.084414	0.973028138
3	0	0		18	2901.084414	0.967028138
4	0	0		18	2883.084414	0.961028138
5	0	0		18	2865.084414	0.955028138
6	0	0		18	2847.084414	0.949028138
7	0	0		18	2829.084414	0.943028138
8	0	0		18	2811.084414	0.937028138
9	0	0		18	2793.084414	0.931028138
10	0	0		18	2775.084414	0.925028138
11	0	0		18	2757.084414	0.919028138
12	0	0		18	2739.084414	0.913028138
13	0	0		18	2721.084414	0.907028138
14	0	0		18	2703.084414	0.901028138
15	0	0		18	2685.084414	0.895028138
16	0	0		18	2667.084414	0.889028138
17	0	0		18	2649.084414	0.883028138
18	0	0		18	2631.084414	0.877028138
19	0	0		18	2613.084414	0.871028138
20	0	0		18	2595.084414	0.865028138
21	0	0		18	2577.084414	0.859028138
22	0	0		18	2559.084414	0.853028138
23	0	0		18	2541.084414	0.847028138
24	0	0		18	2523.084414	0.841028138
25	0	0		18	2505.084414	0.835028138
26	0	0		18	2487.084414	0.829028138
27	0	0		18	2469.084414	0.823028138
28	0	0		18	2451.084414	0.817028138
29	0	0		18	2433.084414	0.811028138
30	0	0		18	2415.084414	0.805028138
Oktober				540		
1	0	0		18	2397.084414	0.799028138
2	0	0		18	2379.084414	0.793028138
3	0	0		18	2361.084414	0.787028138
4	0	0		18	2343.084414	0.781028138
5	0	0		18	2325.084414	0.775028138
6	0	0		18	2307.084414	0.769028138
7	0	0		18	2289.084414	0.763028138
8	0	0		18	2271.084414	0.757028138
9	0	0		18	2253.084414	0.751028138
10	0	0		18	2235.084414	0.745028138
11	0	0		18	2217.084414	0.739028138
12	0	0		18	2199.084414	0.733028138
13	0	0		18	2181.084414	0.727028138
14	0	0		18	2163.084414	0.721028138
15	0	0		18	2145.084414	0.715028138
16	0	0		18	2127.084414	0.709028138
17	0	0		18	2109.084414	0.703028138
18	0	0		18	2091.084414	0.697028138
19	0	0		18	2073.084414	0.691028138
20	0	0		18	2055.084414	0.685028138
21	0	0		18	2037.084414	0.679028138
22	0	0		18	2019.084414	0.673028138
23	0	0		18	2001.084414	0.667028138
24	0	0		18	1983.084414	0.661028138
25	0	0		18	1965.084414	0.655028138
26	0	0		18	1947.084414	0.649028138
27	0	0		18	1929.084414	0.643028138
28	0	0		18	1911.084414	0.637028138
29	0	0		18	1893.084414	0.631028138
30	0	0		18	1875.084414	0.625028138
31	0	0		18	1857.084414	0.619028138
November				558		
1	0	0		18	1839.084414	0.613028138
2	0	0		18	1821.084414	0.607028138
3	0	0		18	1803.084414	0.601028138
4	0	0		18	1785.084414	0.595028138
5	0	0		18	1767.084414	0.589028138
6	0	0		18	1749.084414	0.583028138
7	0	0		18	1731.084414	0.577028138
8	0	0		18	1713.084414	0.571028138
9	0	0		18	1695.084414	0.565028138
10	0	0		18	1677.084414	0.559028138

11	0	0		18	1659.084414	0.553028138
12	0	0		18	1641.084414	0.547028138
13	0	0		18	1623.084414	0.541028138
14	0	0		18	1605.084414	0.535028138
15	0	0		18	1587.084414	0.529028138
16	0	0		18	1569.084414	0.523028138
17	0	0		18	1551.084414	0.517028138
18	0	0		18	1533.084414	0.511028138
19	0	0		18	1515.084414	0.505028138
20	0	0		18	1497.084414	0.499028138
21	0	0		18	1479.084414	0.493028138
22	0	0		18	1461.084414	0.487028138
23	0	0		18	1443.084414	0.481028138
24	0	0		18	1425.084414	0.475028138
25	0	0		18	1407.084414	0.469028138
26	0	0		18	1389.084414	0.463028138
27	0	0		18	1371.084414	0.457028138
28	0	0		18	1353.084414	0.451028138
29	0	0		18	1335.084414	0.445028138
30	0	0		18	1317.084414	0.439028138
Desember				540		
1	0	0		18	1299.084414	0.433028138
2	0	0		18	1281.084414	0.427028138
3	7	73.8612175		18	1336.945631	0.445648544
4	0	0		18	1318.945631	0.439648544
5	0	0		18	1300.945631	0.433648544
6	0	0		18	1282.945631	0.427648544
7	0	0		18	1264.945631	0.421648544
8	0	0		18	1246.945631	0.415648544
9	0	0		18	1228.945631	0.409648544
10	0	0		18	1210.945631	0.403648544
11	0	0		18	1192.945631	0.397648544
12	0	0		18	1174.945631	0.391648544
13	0	0		18	1156.945631	0.385648544
14	0	0		18	1138.945631	0.379648544
15	0	0		18	1120.945631	0.373648544
16	0	0		18	1102.945631	0.367648544
17	20	211.03205		18	1295.977681	0.43199256
18	0	0		18	1277.977681	0.42599256
19	0	0		18	1259.977681	0.41999256
20	0	0		18	1241.977681	0.41399256
21	0	0		18	1223.977681	0.40799256
22	0	0		18	1205.977681	0.40199256
23	0	0		18	1187.977681	0.39599256
24	0	0		18	1169.977681	0.38999256
25	0	0		18	1151.977681	0.38399256
26	0	0		18	1133.977681	0.37799256
27	0	0		18	1115.977681	0.37199256
28	0	0		18	1097.977681	0.36599256
29	50	527.580125		0	1625.557806	0.541852602
30	80	844.1282		0	2469.686006	0.823228669
31	0	0		0	2469.686006	0.823228669

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	5	69.644168		0	4067.773361	1.355924454
2	10	139.28834		0	4207.061696	1.402353899
3	0	0		0	4207.061696	1.402353899
4	0	0		0	4207.061696	1.402353899
5	0	0		0	4207.061696	1.402353899
6	20	278.57667		0	4485.638366	1.495212789
7	0	0		0	4485.638366	1.495212789
8	10	139.28834		0	4624.926701	1.541642234
9	0	0		0	4624.926701	1.541642234
10	25	348.22084		0	4973.147539	1.657715846
11	0	0		0	4973.147539	1.657715846
12	0	0		0	4973.147539	1.657715846
13	0	0		0	4973.147539	1.657715846
14	10	139.28834		0	5112.435874	1.704145291
15	0	0		0	5112.435874	1.704145291
16	0	0		0	5112.435874	1.704145291
17	0	0		0	5112.435874	1.704145291
18	0	0		18	5094.435874	1.698145291
19	0	0		18	5076.435874	1.692145291
20	5	69.644168		0	5146.080041	1.715360014
21	0	0		0	5146.080041	1.715360014
22	0	0		0	5146.080041	1.715360014
23	0	0		0	5146.080041	1.715360014
24	4	55.715334		0	5201.795375	1.733931792
25	15	208.9325		0	5410.727878	1.803575959
26	21	292.5055		0	5703.233381	1.901077794
27	0	0		0	5703.233381	1.901077794
28	0	0		0	5703.233381	1.901077794
29	6	83.573001		0	5786.806382	1.928935461
30	18	250.719		0	6037.525385	2.012508462
31	26	362.14967		0	6399.675056	2.133225019
Februari						
1	20	278.57667		0	6678.251726	2.226083909
2	25	348.22084		0	7026.472564	2.342157521
3	19	264.64784		0	7291.1204	2.430373467
4	0	0		0	7291.1204	2.430373467
5	0	0		0	7291.1204	2.430373467
6	0	0		0	7291.1204	2.430373467
7	0	0		0	7291.1204	2.430373467
8	20	278.57667	1500	0	6069.69707	2.023232357
9	0	0		0	6069.69707	2.023232357
10	0	0		0	6069.69707	2.023232357
11	0	0		0	6069.69707	2.023232357
12	30	417.86501		0	6487.562075	2.162520692
13	7	97.501835	1500	0	5085.06391	1.695021303
14	47	654.65517		0	5739.719084	1.913239695
15	0	0		0	5739.719084	1.913239695
16	13	181.07484		0	5920.79392	1.973597973
17	0	0		0	5920.79392	1.973597973
18	9	125.3595		0	6046.153421	2.015384474
19	0	0		0	6046.153421	2.015384474
20	0	0		0	6046.153421	2.015384474
21	5	69.644168		0	6115.797589	2.038599196
22	0	0		0	6115.797589	2.038599196
23	10	139.28834		0	6255.085924	2.085028641
24	8	111.43067		0	6366.516592	2.122172197
25	0	0		0	6366.516592	2.122172197
26	15	208.9325		0	6575.449094	2.191816365
27	0	0		0	6575.449094	2.191816365
28	0	0		0	6575.449094	2.191816365
Maret						
1	20	278.57667		0	6854.025764	2.284675255
2	10	139.28834		0	6993.314099	2.3311047
3	0	0		0	6993.314099	2.3311047
4	3	41.786501		0	7035.1006	2.345033533
5	0	0		0	7035.1006	2.345033533
6	0	0		0	7035.1006	2.345033533
7	8	111.43067		0	7146.531268	2.382177089
8	14	195.00367		0	7341.534937	2.447178312
9	0	0		0	7341.534937	2.447178312



10	0	0		0	7341.534937	2.447178312
11	0	0		0	7341.534937	2.447178312
12	20	278.57667		0	7620.111607	2.540037202
13	5	69.644168		0	7689.755774	2.563251925
14	7	97.501835		0	7787.257609	2.595752536
15	5	69.644168		0	7856.901776	2.618967259
16	0	0		0	7856.901776	2.618967259
17	20	278.57667		0	8135.478446	2.711826149
18	0	0		0	8135.478446	2.711826149
19	0	0		0	8135.478446	2.711826149
20	8	111.43067		0	8246.909114	2.748969705
21	0	0		0	8246.909114	2.748969705
22	0	0		0	8246.909114	2.748969705
23	30	417.86501		0	8664.774119	2.88825804
24	0	0		0	8664.774119	2.88825804
25	20	278.57667	1500	0	7443.350789	2.48111693
26	25	348.22084		0	7791.571627	2.597190542
27	24	334.292		0	8125.863631	2.70862121
28	0	0		0	8125.863631	2.70862121
29	27	376.0785		0	8501.942135	2.833980712
30	0	0		0	8501.942135	2.833980712
31	0	0		0	8501.942135	2.833980712
April						
1	20	278.57667		0	8780.518805	2.926839602
2	40	557.15334	1500	0	7837.672145	2.612557382
3	39	543.22451		0	8380.896652	2.793632217
4	15	208.9325		0	8589.829154	2.863276385
5	7	97.501835		0	8687.330989	2.895776996
6	17	236.79017		0	8924.121158	2.974707053
7	9	125.3595	1500	0	7549.48066	2.516493553
8	0	0		0	7549.48066	2.516493553
9	8	111.43067	1500	0	6160.911328	2.053637109
10	10	139.28834		0	6300.199663	2.100066554
11	30	417.86501	1500	0	5218.064668	1.739354889
12	14	195.00367		0	5413.068337	1.804356112
13	0	0		0	5413.068337	1.804356112
14	30	417.86501		0	5830.933342	1.943644447
15	0	0		0	5830.933342	1.943644447
16	9	125.3595		0	5956.292843	1.985430948
17	8	111.43067		0	6067.723511	2.022574504
18	0	0		0	6067.723511	2.022574504
19	54	752.15701		0	6819.88052	2.273293507
20	0	0		0	6819.88052	2.273293507
21	16	222.86134		0	7042.741856	2.347580619
22	0	0		0	7042.741856	2.347580619
23	9	125.3595	1500	0	5668.101358	1.889367119
24	0	0		0	5668.101358	1.889367119
25	0	0		0	5668.101358	1.889367119
26	28	390.00734		0	6058.108696	2.019369565
27	10	139.28834		0	6197.397031	2.06579901
28	0	0		0	6197.397031	2.06579901
29	20	278.57667		0	6475.973701	2.1586579
30	32	445.72267		0	6921.696373	2.307232124

Mei						
1	21	292.5055		0	7214.201876	2.404733959
2	7	97.501835		0	7311.703711	2.43723457
3	31	431.79384	1500	0	6243.497549	2.08116585
4	0	0		0	6243.497549	2.08116585
5	26	362.14967	1500	0	5105.64722	1.701882407
6	8	111.43067		0	5217.077888	1.739025963
7	0	0		0	5217.077888	1.739025963
8	0	0		0	5217.077888	1.739025963
9	7	97.501835		0	5314.579723	1.771526574
10	0	0		0	5314.579723	1.771526574
11	6	83.573001		0	5398.152724	1.799384241
12	0	0		0	5398.152724	1.799384241
13	10	139.28834		0	5537.441059	1.845813686
14	7	97.501835		0	5634.942893	1.878314298
15	0	0		0	5634.942893	1.878314298
16	0	0		0	5634.942893	1.878314298
17	0	0		0	5634.942893	1.878314298
18	0	0		18	5616.942893	1.872314298
19	0	0		18	5598.942893	1.866314298
20	8	111.43067		0	5710.373561	1.903457854
21	0	0		0	5710.373561	1.903457854
22	0	0		0	5710.373561	1.903457854
23	0	0		0	5710.373561	1.903457854
24	0	0		18	5692.373561	1.897457854
25	0	0		18	5674.373561	1.891457854
26	0	0		18	5656.373561	1.885457854
27	0	0		18	5638.373561	1.879457854
28	0	0		18	5620.373561	1.873457854
29	20	278.57667		0	5898.950231	1.966316744
30	15	208.9325		0	6107.882734	2.035960911
31	0	0		0	6107.882734	2.035960911
Juni						
1	0	0		0	6107.882734	2.035960911
2	0	0		0	6107.882734	2.035960911
3	0	0		18	6089.882734	2.029960911
4	0	0		18	6071.882734	2.023960911
5	0	0		18	6053.882734	2.017960911
6	0	0		18	6035.882734	2.011960911
7	0	0		18	6017.882734	2.005960911
8	0	0		18	5999.882734	1.999960911
9	0	0		18	5981.882734	1.993960911
10	0	0		18	5963.882734	1.987960911
11	0	0		18	5945.882734	1.981960911
12	0	0		18	5927.882734	1.975960911
13	0	0		18	5909.882734	1.969960911
14	0	0		18	5891.882734	1.963960911
15	0	0		18	5873.882734	1.957960911
16	0	0		18	5855.882734	1.951960911
17	0	0		18	5837.882734	1.945960911
18	0	0		18	5819.882734	1.939960911
19	0	0		18	5801.882734	1.933960911
20	0	0		18	5783.882734	1.927960911
21	0	0		18	5765.882734	1.921960911
22	0	0		18	5747.882734	1.915960911
23	0	0		18	5729.882734	1.909960911
24	0	0		18	5711.882734	1.903960911
25	0	0		18	5693.882734	1.897960911
26	0	0		18	5675.882734	1.891960911
27	0	0		18	5657.882734	1.885960911
28	0	0		18	5639.882734	1.879960911
29	0	0		18	5621.882734	1.873960911
30	0	0		18	5603.882734	1.867960911
Juli						
1	0	0		18	5585.882734	1.861960911
2	0	0		18	5567.882734	1.855960911
3	0	0		18	5549.882734	1.849960911
4	0	0		18	5531.882734	1.843960911
5	0	0		18	5513.882734	1.837960911
6	0	0		18	5495.882734	1.831960911
7	0	0		18	5477.882734	1.825960911
8	0	0		18	5459.882734	1.819960911
9	0	0		18	5441.882734	1.813960911
10	0	0		18	5423.882734	1.807960911

11	0	0		18	5405.882734	1.801960911
12	0	0		18	5387.882734	1.795960911
13	0	0		18	5369.882734	1.789960911
14	0	0		18	5351.882734	1.783960911
15	0	0		18	5333.882734	1.777960911
16	0	0		18	5315.882734	1.771960911
17	0	0		18	5297.882734	1.765960911
18	0	0		18	5279.882734	1.759960911
19	0	0		18	5261.882734	1.753960911
20	0	0		18	5243.882734	1.747960911
21	0	0		18	5225.882734	1.741960911
22	0	0		18	5207.882734	1.735960911
23	0	0		18	5189.882734	1.729960911
24	0	0		18	5171.882734	1.723960911
25	0	0		18	5153.882734	1.717960911
26	0	0		18	5135.882734	1.711960911
27	0	0		18	5117.882734	1.705960911
28	0	0		18	5099.882734	1.699960911
29	0	0		18	5081.882734	1.693960911
30	0	0		18	5063.882734	1.687960911
31	0	0		18	5045.882734	1.681960911
Agustus						
1	0	0		18	5027.882734	1.675960911
2	0	0		18	5009.882734	1.669960911
3	0	0		18	4991.882734	1.663960911
4	0	0		18	4973.882734	1.657960911
5	0	0		18	4955.882734	1.651960911
6	0	0		18	4937.882734	1.645960911
7	0	0		18	4919.882734	1.639960911
8	0	0		18	4901.882734	1.633960911
9	0	0		18	4883.882734	1.627960911
10	0	0		18	4865.882734	1.621960911
11	0	0		18	4847.882734	1.615960911
12	0	0		18	4829.882734	1.609960911
13	0	0		18	4811.882734	1.603960911
14	0	0		18	4793.882734	1.597960911
15	0	0		18	4775.882734	1.591960911
16	0	0		18	4757.882734	1.585960911
17	0	0		18	4739.882734	1.579960911
18	0	0		18	4721.882734	1.573960911
19	0	0		18	4703.882734	1.567960911
20	0	0		18	4685.882734	1.561960911
21	0	0		18	4667.882734	1.555960911
22	0	0		18	4649.882734	1.549960911
23	0	0		18	4631.882734	1.543960911
24	0	0		18	4613.882734	1.537960911
25	0	0		18	4595.882734	1.531960911
26	0	0		18	4577.882734	1.525960911
27	0	0		18	4559.882734	1.519960911
28	0	0		18	4541.882734	1.513960911
29	0	0		18	4523.882734	1.507960911
30	0	0		18	4505.882734	1.501960911
31	0	0		18	4487.882734	1.495960911

September						
1	0	0		18	4469.882734	1.489960911
2	0	0		18	4451.882734	1.483960911
3	0	0		18	4433.882734	1.477960911
4	0	0		18	4415.882734	1.471960911
5	0	0		18	4397.882734	1.465960911
6	0	0		18	4379.882734	1.459960911
7	0	0		18	4361.882734	1.453960911
8	0	0		18	4343.882734	1.447960911
9	0	0		18	4325.882734	1.441960911
10	0	0		18	4307.882734	1.435960911
11	0	0		18	4289.882734	1.429960911
12	0	0		18	4271.882734	1.423960911
13	0	0		18	4253.882734	1.417960911
14	0	0		18	4235.882734	1.411960911
15	0	0		18	4217.882734	1.405960911
16	0	0		18	4199.882734	1.399960911
17	0	0		18	4181.882734	1.393960911
18	0	0		18	4163.882734	1.387960911
19	0	0		18	4145.882734	1.381960911
20	0	0		18	4127.882734	1.375960911
21	0	0		18	4109.882734	1.369960911
22	0	0		18	4091.882734	1.363960911
23	0	0		18	4073.882734	1.357960911
24	0	0		18	4055.882734	1.351960911
25	0	0		18	4037.882734	1.345960911
26	0	0		18	4019.882734	1.339960911
27	0	0		18	4001.882734	1.333960911
28	0	0		18	3983.882734	1.327960911
29	0	0		18	3965.882734	1.321960911
30	0	0		18	3947.882734	1.315960911
Oktober						
1	0	0		18	3929.882734	1.309960911
2	0	0		18	3911.882734	1.303960911
3	0	0		18	3893.882734	1.297960911
4	0	0		18	3875.882734	1.291960911
5	0	0		18	3857.882734	1.285960911
6	0	0		18	3839.882734	1.279960911
7	0	0		18	3821.882734	1.273960911
8	0	0		18	3803.882734	1.267960911
9	0	0		18	3785.882734	1.261960911
10	23	320.36317		0	4106.245904	1.368748635
11	0	0		0	4106.245904	1.368748635
12	0	0		0	4106.245904	1.368748635
13	0	0		0	4106.245904	1.368748635
14	0	0		18	4088.245904	1.362748635
15	0	0		18	4070.245904	1.356748635
16	0	0		18	4052.245904	1.350748635
17	0	0		18	4034.245904	1.344748635
18	0	0		18	4016.245904	1.338748635
19	0	0		18	3998.245904	1.332748635
20	0	0		18	3980.245904	1.326748635
21	0	0		18	3962.245904	1.320748635
22	0	0		18	3944.245904	1.314748635
23	0	0		18	3926.245904	1.308748635
24	0	0		18	3908.245904	1.302748635
25	0	0		18	3890.245904	1.296748635
26	0	0		18	3872.245904	1.290748635
27	0	0		18	3854.245904	1.284748635
28	0	0		18	3836.245904	1.278748635
29	0	0		18	3818.245904	1.272748635
30	0	0		18	3800.245904	1.266748635
31	0	0		18	3782.245904	1.260748635
November						
1	0	0		18	3764.245904	1.254748635
2	0	0		18	3746.245904	1.248748635
3	19	264.64784		0	4010.893741	1.33696458
4	0	0		0	4010.893741	1.33696458
5	3	41.786501		0	4052.680241	1.350893414
6	0	0		0	4052.680241	1.350893414
7	30	417.86501		0	4470.545246	1.490181749
8	0	0		0	4470.545246	1.490181749
9	78	1086.449		0	5556.994259	1.85233142
10	0	0		0	5556.994259	1.85233142

11	0	0		0	5556.994259	1.85233142
12	0	0		0	5556.994259	1.85233142
13	3	41.786501		0	5598.78076	1.866260253
14	0	0		0	5598.78076	1.866260253
15	0	0		0	5598.78076	1.866260253
16	0	0		0	5598.78076	1.866260253
17	0	0		18	5580.78076	1.860260253
18	27	376.0785		0	5956.859264	1.985619755
19	0	0		0	5956.859264	1.985619755
20	0	0		0	5956.859264	1.985619755
21	0	0		0	5956.859264	1.985619755
22	0	0		18	5938.859264	1.979619755
23	33	459.65151		0	6398.51077	2.132836923
24	0	0		0	6398.51077	2.132836923
25	0	0		0	6398.51077	2.132836923
26	0	0		0	6398.51077	2.132836923
27	0	0		18	6380.51077	2.126836923
28	21	292.5055		0	6673.016273	2.224338758
29	2	27.857667		0	6700.87394	2.23624647
30	60	835.73001	1500	0	6036.60395	2.012201317
Desember						
1	0	0		0	6036.60395	2.012201317
2	30	417.86501		0	6454.468955	2.151489652
3	50	696.44168		0	7150.91063	2.383636877
4	0	0		0	7150.91063	2.383636877
5	47	654.65517	1500	0	6305.565805	2.101855268
6	0	0		0	6305.565805	2.101855268
7	10	139.28834	1500	0	4944.85414	1.648284713
8	5	69.644168		0	5014.498307	1.671499436
9	0	0		0	5014.498307	1.671499436
10	0	0		0	5014.498307	1.671499436
11	0	0		0	5014.498307	1.671499436
12	25	348.22084		0	5362.719145	1.787573048
13	0	0		0	5362.719145	1.787573048
14	0	0		0	5362.719145	1.787573048
15	0	0		0	5362.719145	1.787573048
16	54	752.15701	1500	0	4614.876154	1.538292051
17	0	0		0	4614.876154	1.538292051
18	43	598.93984	1500	0	3713.815994	1.237938665
19	1	13.928834		0	3727.744828	1.242581609
20	0	0		0	3727.744828	1.242581609
21	9	125.3595		0	3853.104329	1.28436811
22	0	0		0	3853.104329	1.28436811
23	0	0		0	3853.104329	1.28436811
24	7	97.501835		0	3950.606164	1.316868721
25	20	278.57667		0	4229.182834	1.409727611
26	21	292.5055		0	4521.688337	1.507229446
27	25	348.22084		0	4869.909175	1.623303058
28	0	0		0	4869.909175	1.623303058
29	0	0		0	4869.909175	1.623303058
30	0	0		0	4869.909175	1.623303058
31	57	793.94351		18	5645.852684	1.881950895

Atap = 11106.95 m2  
b = 60 m c 0.95  
l= 50 m  
h= 3 m  
dt = 1 hari

**TAMAN ALUMNI ITS**

TANGGAL	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
<b>Januari</b>	<b>R (mm)</b>					
1	0	0		18	2451.686006	0.817228669
2	0	0		18	2433.686006	0.811228669
3	0	0		18	2415.686006	0.805228669
4	0	0		18	2397.686006	0.799228669
5	0	0		18	2379.686006	0.793228669
6	0	0		18	2361.686006	0.787228669
7	0	0		18	2343.686006	0.781228669
8	0	0		18	2325.686006	0.775228669
9	0	0		18	2307.686006	0.769228669
10	0	0		18	2289.686006	0.763228669
11	0	0		18	2271.686006	0.757228669
12	0	0		18	2253.686006	0.751228669
13	0	0		18	2235.686006	0.745228669
14	0	0		18	2217.686006	0.739228669
15	30	316.548075		0	2534.234081	0.844744694
16	0	0		0	2534.234081	0.844744694
17	0	0		0	2534.234081	0.844744694
18	0	0		0	2534.234081	0.844744694
19	15	158.274038		0	2692.508119	0.897502706
20	0	0		0	2692.508119	0.897502706
21	0	0		0	2692.508119	0.897502706
22	0	0		0	2692.508119	0.897502706
23	55	580.338138		0	3272.846256	1.090948752
24	75	791.370188		0	4064.216444	1.354738815
25	0	0		0	4064.216444	1.354738815
26	0	0		0	4064.216444	1.354738815
27	0	0		0	4064.216444	1.354738815
28	0	0		18	4046.216444	1.348738815
29	0	0		18	4028.216444	1.342738815
30	0	0		18	4010.216444	1.336738815
31	67	706.957368		0	4717.173811	1.57239127
<b>Februari</b>				<b>306</b>		
1	0	0		0	4717.173811	1.57239127
2	0	0		0	4717.173811	1.57239127
3	38	400.960895	1000	0	4118.134706	1.372711569
4	24	253.23846		0	4371.373166	1.457124389
5	16	168.82564		0	4540.198806	1.513399602
6	31	327.099678		0	4867.298484	1.622432828
7	0	0		0	4867.298484	1.622432828
8	0	0		0	4867.298484	1.622432828
9	0	0		0	4867.298484	1.622432828
10	15	158.274038		0	5025.572521	1.67519084
11	0	0		0	5025.572521	1.67519084
12	50	527.580125	1000	0	4553.152646	1.517717549
13	0	0		0	4553.152646	1.517717549
14	0	0		0	4553.152646	1.517717549
15	0	0		0	4553.152646	1.517717549
16	0	0		18	4535.152646	1.511717549
17	0	0		18	4517.152646	1.505717549
18	0	0		18	4499.152646	1.499717549
19	0	0		18	4481.152646	1.493717549
20	0	0		18	4463.152646	1.487717549
21	25	263.790063		0	4726.942709	1.57564757
22	0	0		0	4726.942709	1.57564757
23	0	0		0	4726.942709	1.57564757
24	20	211.03205		0	4937.974759	1.645991586
25	0	0		0	4937.974759	1.645991586
26	23	242.686858	1000	0	4180.661616	1.393553872
27	30	316.548075		0	4497.209691	1.499069897
28	45	474.822113		0	4972.031804	1.657343935
<b>Maret</b>				<b>90</b>		
1	25	263.790063	1000	0	4235.821866	1.411940622
2	10	105.516025		0	4341.337891	1.44711263
3	0	0		0	4341.337891	1.44711263
4	0	0		0	4341.337891	1.44711263

5	0	0		0	4341.337891	1.44711263
6	0	0		18	4323.337891	1.44111263
7	40	422.0641	1000	0	3745.401991	1.24846733
8	55	580.338138		0	4325.740129	1.441913376
9	0	0		0	4325.740129	1.441913376
10	0	0		0	4325.740129	1.441913376
11	0	0		0	4325.740129	1.441913376
12	0	0		18	4307.740129	1.435913376
13	0	0		18	4289.740129	1.429913376
14	20	211.03205		0	4500.772179	1.500257393
15	0	0		0	4500.772179	1.500257393
16	0	0		0	4500.772179	1.500257393
17	0	0		0	4500.772179	1.500257393
18	0	0		18	4482.772179	1.494257393
19	0	0		18	4464.772179	1.488257393
20	0	0		18	4446.772179	1.482257393
21	39	411.512498		0	4858.284676	1.619428225
22	0	0		0	4858.284676	1.619428225
23	0	0		0	4858.284676	1.619428225
24	0	0		0	4858.284676	1.619428225
25	0	0		18	4840.284676	1.613428225
26	0	0		18	4822.284676	1.607428225
27	0	0		18	4804.284676	1.601428225
28	0	0		18	4786.284676	1.595428225
29	0	0		18	4768.284676	1.589428225
30	20	211.03205		18	4961.316726	1.653772242
31	0	0		18	4943.316726	1.647772242
April				234		
1	0	0		18	4925.316726	1.641772242
2	0	0		18	4907.316726	1.635772242
3	0	0		18	4889.316726	1.629772242
4	0	0		18	4871.316726	1.623772242
5	0	0		18	4853.316726	1.617772242
6	0	0		18	4835.316726	1.611772242
7	0	0		18	4817.316726	1.605772242
8	0	0		18	4799.316726	1.599772242
9	7	73.8612175		0	4873.177944	1.624392648
10	0	0		0	4873.177944	1.624392648
11	0	0		0	4873.177944	1.624392648
12	0	0		0	4873.177944	1.624392648
13	0	0		18	4855.177944	1.618392648
14	0	0		18	4837.177944	1.612392648
15	0	0		18	4819.177944	1.606392648
16	0	0		18	4801.177944	1.600392648
17	0	0		18	4783.177944	1.594392648
18	0	0		18	4765.177944	1.588392648
19	0	0		18	4747.177944	1.582392648
20	0	0		18	4729.177944	1.576392648
21	0	0		18	4711.177944	1.570392648
22	0	0		18	4693.177944	1.564392648
23	20	211.03205		0	4904.209994	1.634736665
24	0	0		0	4904.209994	1.634736665
25	0	0		0	4904.209994	1.634736665
26	0	0		0	4904.209994	1.634736665
27	0	0		18	4886.209994	1.628736665
28	0	0		18	4868.209994	1.622736665
29	0	0		18	4850.209994	1.616736665
30	0	0		18	4832.209994	1.610736665

Mei				396		
1	0	0		18	4814.209994	1.604736665
2	0	0		18	4796.209994	1.598736665
3	0	0		18	4778.209994	1.592736665
4	0	0		18	4760.209994	1.586736665
5	0	0		18	4742.209994	1.580736665
6	0	0		18	4724.209994	1.574736665
7	0	0		18	4706.209994	1.568736665
8	0	0		18	4688.209994	1.562736665
9	0	0		18	4670.209994	1.556736665
10	0	0		18	4652.209994	1.550736665
11	0	0		18	4634.209994	1.544736665
12	0	0		18	4616.209994	1.538736665
13	0	0		18	4598.209994	1.532736665
14	0	0		18	4580.209994	1.526736665
15	0	0		18	4562.209994	1.520736665
16	0	0		18	4544.209994	1.514736665
17	0	0		18	4526.209994	1.508736665
18	0	0		18	4508.209994	1.502736665
19	0	0		18	4490.209994	1.496736665
20	0	0		18	4472.209994	1.490736665
21	0	0		18	4454.209994	1.484736665
22	17	179.377243		18	4615.587236	1.538529079
23	0	0		18	4597.587236	1.532529079
24	0	0		18	4579.587236	1.526529079
25	0	0		18	4561.587236	1.520529079
26	0	0		18	4543.587236	1.514529079
27	0	0		18	4525.587236	1.508529079
28	0	0		18	4507.587236	1.502529079
29	0	0		18	4489.587236	1.496529079
30	0	0		18	4471.587236	1.490529079
31	0	0		18	4453.587236	1.484529079
Juni				558		
1	0	0		18	4435.587236	1.478529079
2	0	0		18	4417.587236	1.472529079
3	0	0		18	4399.587236	1.466529079
4	0	0		18	4381.587236	1.460529079
5	0	0		18	4363.587236	1.454529079
6	0	0		18	4345.587236	1.448529079
7	0	0		18	4327.587236	1.442529079
8	0	0		18	4309.587236	1.436529079
9	0	0		18	4291.587236	1.430529079
10	0	0		18	4273.587236	1.424529079
11	0	0		18	4255.587236	1.418529079
12	0	0		18	4237.587236	1.412529079
13	0	0		18	4219.587236	1.406529079
14	0	0		18	4201.587236	1.400529079
15	0	0		18	4183.587236	1.394529079
16	0	0		18	4165.587236	1.388529079
17	0	0		18	4147.587236	1.382529079
18	0	0		18	4129.587236	1.376529079
19	0	0		18	4111.587236	1.370529079
20	0	0		18	4093.587236	1.364529079
21	0	0		18	4075.587236	1.358529079
22	0	0		18	4057.587236	1.352529079
23	0	0		18	4039.587236	1.346529079
24	0	0		18	4021.587236	1.340529079
25	0	0		18	4003.587236	1.334529079
26	0	0		18	3985.587236	1.328529079
27	0	0		18	3967.587236	1.322529079
28	0	0		18	3949.587236	1.316529079
29	15	158.274038		0	4107.861274	1.369287091
30	0	0		0	4107.861274	1.369287091
Juli				504		
1	0	0		0	4107.861274	1.369287091
2	0	0		0	4107.861274	1.369287091
3	0	0		18	4089.861274	1.363287091
4	0	0		18	4071.861274	1.357287091
5	0	0		18	4053.861274	1.351287091
6	0	0		18	4035.861274	1.345287091
7	0	0		18	4017.861274	1.339287091
8	0	0		18	3999.861274	1.333287091
9	0	0		18	3981.861274	1.327287091
10	0	0		18	3963.861274	1.321287091



11	0	0		18	3945.861274	1.315287091
12	0	0		18	3927.861274	1.309287091
13	0	0		18	3909.861274	1.303287091
14	0	0		18	3891.861274	1.297287091
15	0	0		18	3873.861274	1.291287091
16	0	0		18	3855.861274	1.285287091
17	0	0		18	3837.861274	1.279287091
18	0	0		18	3819.861274	1.273287091
19	0	0		18	3801.861274	1.267287091
20	0	0		18	3783.861274	1.261287091
21	0	0		18	3765.861274	1.255287091
22	0	0		18	3747.861274	1.249287091
23	0	0		18	3729.861274	1.243287091
24	0	0		18	3711.861274	1.237287091
25	0	0		18	3693.861274	1.231287091
26	0	0		18	3675.861274	1.225287091
27	0	0		18	3657.861274	1.219287091
28	0	0		18	3639.861274	1.213287091
29	0	0		18	3621.861274	1.207287091
30	0	0		18	3603.861274	1.201287091
31	0	0		18	3585.861274	1.195287091
Agustus				522		
1	0	0		18	3567.861274	1.189287091
2	0	0		18	3549.861274	1.183287091
3	0	0		18	3531.861274	1.177287091
4	0	0		18	3513.861274	1.171287091
5	0	0		18	3495.861274	1.165287091
6	0	0		18	3477.861274	1.159287091
7	0	0		18	3459.861274	1.153287091
8	0	0		18	3441.861274	1.147287091
9	0	0		18	3423.861274	1.141287091
10	0	0		18	3405.861274	1.135287091
11	0	0		18	3387.861274	1.129287091
12	0	0		18	3369.861274	1.123287091
13	0	0		18	3351.861274	1.117287091
14	0	0		18	3333.861274	1.111287091
15	0	0		18	3315.861274	1.105287091
16	0	0		18	3297.861274	1.099287091
17	0	0		18	3279.861274	1.093287091
18	0	0		18	3261.861274	1.087287091
19	0	0		18	3243.861274	1.081287091
20	0	0		18	3225.861274	1.075287091
21	0	0		18	3207.861274	1.069287091
22	0	0		18	3189.861274	1.063287091
23	0	0		18	3171.861274	1.057287091
24	0	0		18	3153.861274	1.051287091
25	0	0		18	3135.861274	1.045287091
26	0	0		18	3117.861274	1.039287091
27	0	0		18	3099.861274	1.033287091
28	0	0		18	3081.861274	1.027287091
29	0	0		18	3063.861274	1.021287091
30	0	0		18	3045.861274	1.015287091
31	0	0		18	3027.861274	1.009287091

September				558		
1	0	0		18	3009.861274	1.003287091
2	0	0		18	2991.861274	0.997287091
3	0	0		18	2973.861274	0.991287091
4	0	0		18	2955.861274	0.985287091
5	0	0		18	2937.861274	0.979287091
6	0	0		18	2919.861274	0.973287091
7	0	0		18	2901.861274	0.967287091
8	0	0		18	2883.861274	0.961287091
9	0	0		18	2865.861274	0.955287091
10	0	0		18	2847.861274	0.949287091
11	0	0		18	2829.861274	0.943287091
12	0	0		18	2811.861274	0.937287091
13	0	0		18	2793.861274	0.931287091
14	0	0		18	2775.861274	0.925287091
15	0	0		18	2757.861274	0.919287091
16	0	0		18	2739.861274	0.913287091
17	0	0		18	2721.861274	0.907287091
18	0	0		18	2703.861274	0.901287091
19	0	0		18	2685.861274	0.895287091
20	0	0		18	2667.861274	0.889287091
21	0	0		18	2649.861274	0.883287091
22	0	0		18	2631.861274	0.877287091
23	0	0		18	2613.861274	0.871287091
24	0	0		18	2595.861274	0.865287091
25	0	0		18	2577.861274	0.859287091
26	0	0		18	2559.861274	0.853287091
27	0	0		18	2541.861274	0.847287091
28	0	0		18	2523.861274	0.841287091
29	0	0		18	2505.861274	0.835287091
30	0	0		18	2487.861274	0.829287091
Oktober				540		
1	0	0		18	2469.861274	0.823287091
2	0	0		18	2451.861274	0.817287091
3	0	0		18	2433.861274	0.811287091
4	0	0		18	2415.861274	0.805287091
5	0	0		18	2397.861274	0.799287091
6	0	0		18	2379.861274	0.793287091
7	0	0		18	2361.861274	0.787287091
8	0	0		18	2343.861274	0.781287091
9	0	0		18	2325.861274	0.775287091
10	0	0		18	2307.861274	0.769287091
11	0	0		18	2289.861274	0.763287091
12	0	0		18	2271.861274	0.757287091
13	0	0		18	2253.861274	0.751287091
14	0	0		18	2235.861274	0.745287091
15	0	0		18	2217.861274	0.739287091
16	0	0		18	2199.861274	0.733287091
17	0	0		18	2181.861274	0.727287091
18	0	0		18	2163.861274	0.721287091
19	0	0		18	2145.861274	0.715287091
20	0	0		18	2127.861274	0.709287091
21	0	0		18	2109.861274	0.703287091
22	0	0		18	2091.861274	0.697287091
23	0	0		18	2073.861274	0.691287091
24	0	0		18	2055.861274	0.685287091
25	0	0		18	2037.861274	0.679287091
26	0	0		18	2019.861274	0.673287091
27	0	0		18	2001.861274	0.667287091
28	0	0		18	1983.861274	0.661287091
29	0	0		18	1965.861274	0.655287091
30	0	0		18	1947.861274	0.649287091
31	0	0		18	1929.861274	0.643287091
November				558		
1	8	84.41282		0	2014.274094	0.671424698
2	5	52.7580125		0	2067.032106	0.689010702
3	11	116.067628		0	2183.099734	0.727699911
4	15	158.274038		0	2341.373771	0.780457924
5	0	0		0	2341.373771	0.780457924
6	3	31.6548075		0	2373.028579	0.791009526
7	2	21.103205		0	2394.131784	0.798043928
8	4	42.20641		0	2436.338194	0.812112731
9	0	0		0	2436.338194	0.812112731
10	0	0		0	2436.338194	0.812112731

11	0	0		0	2436.338194	0.812112731
12	0	0		18	2418.338194	0.806112731
13	0	0		18	2400.338194	0.800112731
14	0	0		18	2382.338194	0.794112731
15	0	0		18	2364.338194	0.788112731
16	0	0		18	2346.338194	0.782112731
17	0	0		18	2328.338194	0.776112731
18	0	0		18	2310.338194	0.770112731
19	0	0		18	2292.338194	0.764112731
20	0	0		18	2274.338194	0.758112731
21	0	0		18	2256.338194	0.752112731
22	0	0		18	2238.338194	0.746112731
23	1	10.5516025		18	2230.889796	0.743629932
24	0	0		18	2212.889796	0.737629932
25	0	0		18	2194.889796	0.731629932
26	0	0		18	2176.889796	0.725629932
27	0	0		18	2158.889796	0.719629932
28	0	0		18	2140.889796	0.713629932
29	84	886.33461		0	3027.224406	1.009074802
30	0	0		0	3027.224406	1.009074802
Desember				306		
1	0	0		0	3027.224406	1.009074802
2	0	0		0	3027.224406	1.009074802
3	0	0		18	3009.224406	1.003074802
4	10	105.516025		0	3114.740431	1.03824681
5	0	0		0	3114.740431	1.03824681
6	0	0		0	3114.740431	1.03824681
7	0	0		0	3114.740431	1.03824681
8	0	0		18	3096.740431	1.03224681
9	0	0		18	3078.740431	1.02624681
10	0	0		18	3060.740431	1.02024681
11	0	0		18	3042.740431	1.01424681
12	0	0		18	3024.740431	1.00824681
13	0	0		18	3006.740431	1.00224681
14	0	0		18	2988.740431	0.99624681
15	0	0		18	2970.740431	0.99024681
16	0	0		18	2952.740431	0.98424681
17	127	1340.05352		0	4292.793949	1.430931316
18	50	527.580125		0	4820.374074	1.606791358
19	34	358.754485	1000	0	4179.128559	1.393042853
20	0	0		0	4179.128559	1.393042853
21	64	675.30256		0	4854.431119	1.618143706
22	5	52.7580125		0	4907.189131	1.63572971
23	0	0		0	4907.189131	1.63572971
24	10	105.516025		0	5012.705156	1.670901719
25	25	263.790063	1000	0	4276.495219	1.425498406
26	63	664.750958		0	4941.246176	1.647082059
27	0	0		0	4941.246176	1.647082059
28	0	0		0	4941.246176	1.647082059
29	0	0		0	4941.246176	1.647082059
30	0	0		18	4923.246176	1.641082059
31	0	0		18	4905.246176	1.635082059

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	72	1002.876012		0	6648.728696	2.216242899
2	49	682.5128415		0	7331.241538	2.443747179
3	0	0		0	7331.241538	2.443747179
4	0	0		0	7331.241538	2.443747179
5	33	459.6515055	1500	0	6290.893043	2.096964348
6	24	334.292004		0	6625.185047	2.208395016
7	0	0		0	6625.185047	2.208395016
8	0	0		0	6625.185047	2.208395016
9	0	0		0	6625.185047	2.208395016
10	32	445.722672		0	7070.907719	2.35696924
11	0	0		0	7070.907719	2.35696924
12	6	83.573001		0	7154.48072	2.384826907
13	0	0		0	7154.48072	2.384826907
14	0	0		0	7154.48072	2.384826907
15	52	724.299342	1500	0	6378.780062	2.126260021
16	61	849.6588435		0	7228.438906	2.409479635
17	20	278.57667		0	7507.015576	2.502338525
18	16	222.861336	1500	0	6229.876912	2.076625637
19	0	0		0	6229.876912	2.076625637
20	55	766.0858425	1500	0	5495.962754	1.831987585
21	0	0		0	5495.962754	1.831987585
22	7	97.5018345		0	5593.464589	1.864488196
23	6	83.573001		0	5677.03759	1.892345863
24	4	55.715334		0	5732.752924	1.910917641
25	9	125.3595015		0	5858.112425	1.952704142
26	0	0		0	5858.112425	1.952704142
27	0	0		0	5858.112425	1.952704142
28	0	0		0	5858.112425	1.952704142
29	0	0		18	5840.112425	1.946704142
30	85	1183.950848		0	7024.063273	2.341354424
31	20	278.57667	1500	0	5802.639943	1.934213314
Februari						
1	11	153.2171685		0	5955.857111	1.985285704
2	10	139.288335		0	6095.145446	2.031715149
3	24	334.292004		0	6429.43745	2.143145817
4	10	139.288335		0	6568.725785	2.189575262
5	0	0		0	6568.725785	2.189575262
6	0	0		0	6568.725785	2.189575262
7	9	125.3595015		0	6694.085287	2.231361762
8	67	933.2318445	1500	0	6127.317131	2.042439044
9	5	69.6441675		0	6196.961299	2.065653766
10	13	181.0748355		0	6378.036134	2.126012045
11	27	376.0785045		0	6754.114639	2.251371546
12	21	292.5055035		0	7046.620142	2.348873381
13	9	125.3595015		0	7171.979644	2.390659881
14	7	97.5018345		0	7269.481478	2.423160493
15	10	139.288335		0	7408.769813	2.469589938
16	55	766.0858425	1500	0	6674.855656	2.224951885
17	0	0		0	6674.855656	2.224951885
18	3	41.7865005		0	6716.642156	2.238880719
19	0	0		0	6716.642156	2.238880719
20	3	41.7865005		0	6758.428657	2.252809552
21	4	55.715334		0	6814.143991	2.27138133
22	0	0		0	6814.143991	2.27138133
23	0	0		0	6814.143991	2.27138133
24	0	0		0	6814.143991	2.27138133
25	38	529.295673		0	7343.439664	2.447813221
26	19	264.6478365	1500	0	6108.0875	2.036029167
27	0	0		0	6108.0875	2.036029167
28	23	320.3631705		0	6428.450671	2.14281689
Maret						
1	15	208.9325025		0	6637.383173	2.212461058
2	0	0		0	6637.383173	2.212461058
3	0	0		0	6637.383173	2.212461058
4	0	0		0	6637.383173	2.212461058
5	0	0		18	6619.383173	2.206461058
6	25	348.2208375		0	6967.604011	2.32253467
7	12	167.146002		0	7134.750013	2.378250004
8	0	0		0	7134.750013	2.378250004
9	0	0		0	7134.750013	2.378250004
10	0	0		0	7134.750013	2.378250004

11	0	0		18	7116.750013	2.372250004
12	0	0		0	7116.750013	2.372250004
13	19	264.6478365	1500	0	5881.397849	1.96046595
14	11	153.2171685		0	6034.615018	2.011538339
15	7	97.5018345		0	6132.116852	2.044038951
16	5	69.6441675		0	6201.76102	2.067253673
17	14	195.003669		0	6396.764689	2.132254896
18	20	278.57667		0	6675.341359	2.225113786
19	0	0		0	6675.341359	2.225113786
20	21	292.5055035		0	6967.846862	2.322615621
21	0	0		0	6967.846862	2.322615621
22	0	0		0	6967.846862	2.322615621
23	0	0		0	6967.846862	2.322615621
24	7	97.5018345		0	7065.348697	2.355116232
25	0	0		0	7065.348697	2.355116232
26	5	69.6441675		0	7134.992864	2.378330955
27	35	487.5091725	1500	0	6122.502037	2.040834012
28	0	0		0	6122.502037	2.040834012
29	0	0		0	6122.502037	2.040834012
30	0	0		0	6122.502037	2.040834012
31	0	0		18	6104.502037	2.034834012
April						
1	0	0		0	6104.502037	2.034834012
2	8	111.430668		0	6215.932705	2.071977568
3	0	0		0	6215.932705	2.071977568
4	0	0		0	6215.932705	2.071977568
5	19	264.6478365		0	6480.580541	2.160193514
6	0	0		0	6480.580541	2.160193514
7	0	0		0	6480.580541	2.160193514
8	30	417.865005		0	6898.445546	2.299481849
9	0	0		0	6898.445546	2.299481849
10	0	0		0	6898.445546	2.299481849
11	0	0		0	6898.445546	2.299481849
12	0	0		18	6880.445546	2.293481849
13	0	0		18	6862.445546	2.287481849
14	0	0		18	6844.445546	2.281481849
15	22	306.434337		0	7150.879883	2.383626628
16	0	0		0	7150.879883	2.383626628
17	0	0		0	7150.879883	2.383626628
18	0	0		0	7150.879883	2.383626628
19	0	0		18	7132.879883	2.377626628
20	0	0		18	7114.879883	2.371626628
21	19	264.6478365		0	7379.52772	2.459842573
22	0	0		0	7379.52772	2.459842573
23	0	0		0	7379.52772	2.459842573
24	0	0		0	7379.52772	2.459842573
25	0	0		18	7361.52772	2.453842573
26	0	0		18	7343.52772	2.447842573
27	4	55.715334		0	7399.243054	2.466414351
28	0	0		0	7399.243054	2.466414351
29	0	0		0	7399.243054	2.466414351
30	0	0		0	7399.243054	2.466414351

Mei						
1	0	0		18	7381.243054	2.460414351
2	0	0		18	7363.243054	2.454414351
3	9	125.3595015		0	7488.602555	2.496200852
4	0	0		0	7488.602555	2.496200852
5	0	0		0	7488.602555	2.496200852
6	0	0		0	7488.602555	2.496200852
7	0	0		18	7470.602555	2.490200852
8	0	0		18	7452.602555	2.484200852
9	0	0		18	7434.602555	2.478200852
10	0	0		18	7416.602555	2.472200852
11	0	0		18	7398.602555	2.466200852
12	0	0		18	7380.602555	2.460200852
13	0	0		18	7362.602555	2.454200852
14	24	334.292004	1500	0	6196.894559	2.06563152
15	17	236.7901695		0	6433.684729	2.144561576
16	0	0		0	6433.684729	2.144561576
17	0	0		0	6433.684729	2.144561576
18	0	0		0	6433.684729	2.144561576
19	0	0		18	6415.684729	2.138561576
20	0	0		18	6397.684729	2.132561576
21	0	0		18	6379.684729	2.126561576
22	0	0		18	6361.684729	2.120561576
23	0	0		18	6343.684729	2.114561576
24	0	0		18	6325.684729	2.108561576
25	0	0		18	6307.684729	2.102561576
26	0	0		18	6289.684729	2.096561576
27	0	0		18	6271.684729	2.090561576
28	0	0		18	6253.684729	2.084561576
29	0	0		18	6235.684729	2.078561576
30	0	0		18	6217.684729	2.072561576
31	0	0		18	6199.684729	2.066561576
Juni						
1	0	0		18	6181.684729	2.060561576
2	0	0		18	6163.684729	2.054561576
3	0	0		18	6145.684729	2.048561576
4	0	0		18	6127.684729	2.042561576
5	0	0		18	6109.684729	2.036561576
6	0	0		18	6091.684729	2.030561576
7	0	0		18	6073.684729	2.024561576
8	0	0		18	6055.684729	2.018561576
9	0	0		18	6037.684729	2.012561576
10	0	0		18	6019.684729	2.006561576
11	0	0		18	6001.684729	2.000561576
12	0	0		18	5983.684729	1.994561576
13	0	0		18	5965.684729	1.988561576
14	0	0		18	5947.684729	1.982561576
15	0	0		18	5929.684729	1.976561576
16	0	0		18	5911.684729	1.970561576
17	0	0		18	5893.684729	1.964561576
18	0	0		18	5875.684729	1.958561576
19	0	0		18	5857.684729	1.952561576
20	0	0		18	5839.684729	1.946561576
21	0	0		18	5821.684729	1.940561576
22	0	0		18	5803.684729	1.934561576
23	0	0		18	5785.684729	1.928561576
24	0	0		18	5767.684729	1.922561576
25	0	0		18	5749.684729	1.916561576
26	0	0		18	5731.684729	1.910561576
27	0	0		18	5713.684729	1.904561576
28	0	0		18	5695.684729	1.898561576
29	0	0		18	5677.684729	1.892561576
30	0	0		18	5659.684729	1.886561576
Juli						
1	0	0		18	5641.684729	1.880561576
2	0	0		18	5623.684729	1.874561576
3	0	0		18	5605.684729	1.868561576
4	0	0		18	5587.684729	1.862561576
5	0	0		18	5569.684729	1.856561576
6	0	0		18	5551.684729	1.850561576
7	0	0		18	5533.684729	1.844561576
8	0	0		18	5515.684729	1.838561576
9	0	0		18	5497.684729	1.832561576
10	0	0		18	5479.684729	1.826561576

11	0	0		18	5461.684729	1.820561576
12	0	0		18	5443.684729	1.814561576
13	0	0		18	5425.684729	1.808561576
14	0	0		18	5407.684729	1.802561576
15	0	0		18	5389.684729	1.796561576
16	0	0		18	5371.684729	1.790561576
17	0	0		18	5353.684729	1.784561576
18	0	0		18	5335.684729	1.778561576
19	0	0		18	5317.684729	1.772561576
20	0	0		18	5299.684729	1.766561576
21	0	0		18	5281.684729	1.760561576
22	0	0		18	5263.684729	1.754561576
23	0	0		18	5245.684729	1.748561576
24	0	0		18	5227.684729	1.742561576
25	0	0		18	5209.684729	1.736561576
26	0	0		18	5191.684729	1.730561576
27	0	0		18	5173.684729	1.724561576
28	0	0		18	5155.684729	1.718561576
29	0	0		18	5137.684729	1.712561576
30	0	0		18	5119.684729	1.706561576
31	0	0		18	5101.684729	1.700561576
Agustus						
1	0	0		18	5083.684729	1.694561576
2	0	0		18	5065.684729	1.688561576
3	0	0		18	5047.684729	1.682561576
4	0	0		18	5029.684729	1.676561576
5	0	0		18	5011.684729	1.670561576
6	0	0		18	4993.684729	1.664561576
7	0	0		18	4975.684729	1.658561576
8	0	0		18	4957.684729	1.652561576
9	0	0		18	4939.684729	1.646561576
10	0	0		18	4921.684729	1.640561576
11	0	0		18	4903.684729	1.634561576
12	0	0		18	4885.684729	1.628561576
13	0	0		18	4867.684729	1.622561576
14	0	0		18	4849.684729	1.616561576
15	0	0		18	4831.684729	1.610561576
16	0	0		18	4813.684729	1.604561576
17	0	0		18	4795.684729	1.598561576
18	0	0		18	4777.684729	1.592561576
19	0	0		18	4759.684729	1.586561576
20	0	0		18	4741.684729	1.580561576
21	0	0		18	4723.684729	1.574561576
22	0	0		18	4705.684729	1.568561576
23	0	0		18	4687.684729	1.562561576
24	0	0		18	4669.684729	1.556561576
25	0	0		18	4651.684729	1.550561576
26	0	0		18	4633.684729	1.544561576
27	0	0		18	4615.684729	1.538561576
28	0	0		18	4597.684729	1.532561576
29	0	0		18	4579.684729	1.526561576
30	0	0		18	4561.684729	1.520561576
31	0	0		18	4543.684729	1.514561576

September						
1	0	0		18	4525.684729	1.508561576
2	0	0		18	4507.684729	1.502561576
3	0	0		18	4489.684729	1.496561576
4	0	0		18	4471.684729	1.490561576
5	0	0		18	4453.684729	1.484561576
6	0	0		18	4435.684729	1.478561576
7	0	0		18	4417.684729	1.472561576
8	0	0		18	4399.684729	1.466561576
9	0	0		18	4381.684729	1.460561576
10	0	0		18	4363.684729	1.454561576
11	0	0		18	4345.684729	1.448561576
12	0	0		18	4327.684729	1.442561576
13	0	0		18	4309.684729	1.436561576
14	0	0		18	4291.684729	1.430561576
15	0	0		18	4273.684729	1.424561576
16	0	0		18	4255.684729	1.418561576
17	0	0		18	4237.684729	1.412561576
18	0	0		18	4219.684729	1.406561576
19	0	0		18	4201.684729	1.400561576
20	0	0		18	4183.684729	1.394561576
21	0	0		18	4165.684729	1.388561576
22	0	0		18	4147.684729	1.382561576
23	0	0		18	4129.684729	1.376561576
24	0	0		18	4111.684729	1.370561576
25	0	0		18	4093.684729	1.364561576
26	0	0		18	4075.684729	1.358561576
27	0	0		18	4057.684729	1.352561576
28	0	0		18	4039.684729	1.346561576
29	0	0		18	4021.684729	1.340561576
30	0	0		18	4003.684729	1.334561576
Oktober						
1	0	0		18	3985.684729	1.328561576
2	0	0		18	3967.684729	1.322561576
3	0	0		18	3949.684729	1.316561576
4	0	0		18	3931.684729	1.310561576
5	0	0		18	3913.684729	1.304561576
6	0	0		18	3895.684729	1.298561576
7	0	0		18	3877.684729	1.292561576
8	0	0		18	3859.684729	1.286561576
9	0	0		18	3841.684729	1.280561576
10	0	0		18	3823.684729	1.274561576
11	0	0		18	3805.684729	1.268561576
12	4	55.715334		18	3843.400063	1.281133354
13	0	0		18	3825.400063	1.275133354
14	0	0		18	3807.400063	1.269133354
15	0	0		18	3789.400063	1.263133354
16	0	0		18	3771.400063	1.257133354
17	0	0		18	3753.400063	1.251133354
18	0	0		18	3735.400063	1.245133354
19	0	0		18	3717.400063	1.239133354
20	0	0		18	3699.400063	1.233133354
21	0	0		18	3681.400063	1.227133354
22	0	0		18	3663.400063	1.221133354
23	0	0		18	3645.400063	1.215133354
24	0	0		18	3627.400063	1.209133354
25	0	0		18	3609.400063	1.203133354
26	0	0		18	3591.400063	1.197133354
27	0	0		18	3573.400063	1.191133354
28	0	0		18	3555.400063	1.185133354
29	0	0		18	3537.400063	1.179133354
30	0	0		18	3519.400063	1.173133354
31	0	0		18	3501.400063	1.167133354
November						
1	0	0		18	3483.400063	1.161133354
2	0	0		18	3465.400063	1.155133354
3	0	0		18	3447.400063	1.149133354
4	0	0		18	3429.400063	1.143133354
5	0	0		18	3411.400063	1.137133354
6	0	0		18	3393.400063	1.131133354
7	0	0		18	3375.400063	1.125133354
8	10	139.288335		0	3514.688398	1.171562799
9	0	0		0	3514.688398	1.171562799
10	0	0		0	3514.688398	1.171562799



11	0	0		0	3514.688398	1.171562799
12	0	0		18	3496.688398	1.165562799
13	0	0		18	3478.688398	1.159562799
14	0	0		18	3460.688398	1.153562799
15	0	0		18	3442.688398	1.147562799
16	0	0		18	3424.688398	1.141562799
17	0	0		18	3406.688398	1.135562799
18	13	181.0748355		0	3587.763233	1.195921078
19	5	69.6441675		0	3657.407401	1.2191358
20	47	654.6551745		0	4312.062575	1.437354192
21	0	0		0	4312.062575	1.437354192
22	0	0		0	4312.062575	1.437354192
23	0	0		0	4312.062575	1.437354192
24	0	0		18	4294.062575	1.431354192
25	0	0		18	4276.062575	1.425354192
26	0	0		18	4258.062575	1.419354192
27	0	0		18	4240.062575	1.413354192
28	0	0		18	4222.062575	1.407354192
29	0	0		18	4204.062575	1.401354192
30	0	0		18	4186.062575	1.395354192
Desember						
1	47	654.6551745		0	4840.71775	1.613572583
2	31	431.7938385		0	5272.511588	1.757503863
3	24	334.292004		0	5606.803592	1.868934531
4	0	0		0	5606.803592	1.868934531
5	40	557.15334		0	6163.956932	2.054652311
6	0	0		0	6163.956932	2.054652311
7	0	0		0	6163.956932	2.054652311
8	0	0		0	6163.956932	2.054652311
9	0	0		18	6145.956932	2.048652311
10	21	292.5055035		0	6438.462436	2.146154145
11	22	306.434337		0	6744.896773	2.248298924
12	0	0		0	6744.896773	2.248298924
13	0	0		0	6744.896773	2.248298924
14	0	0		0	6744.896773	2.248298924
15	28	390.007338		0	7134.904111	2.37830137
16	0	0		0	7134.904111	2.37830137
17	11	153.2171685		0	7288.121279	2.42937376
18	10	139.288335		0	7427.409614	2.475803205
19	0	0		0	7427.409614	2.475803205
20	10	139.288335	1500	0	6066.697949	2.02223265
21	18	250.719003		0	6317.416952	2.105805651
22	15	208.9325025		0	6526.349455	2.175449818
23	16	222.861336		0	6749.210791	2.24973693
24	0	0		0	6749.210791	2.24973693
25	0	0		0	6749.210791	2.24973693
26	26	362.149671		0	7111.360462	2.370453487
27	64	891.445344	1500	0	6502.805806	2.167601935
28	30	417.865005		0	6920.670811	2.30689027
29	20	278.57667		0	7199.247481	2.39974916
30	45	626.7975075	1500	0	6326.044988	2.108681663
31	48	668.584008		0	6994.628996	2.331542999

## TAMAN ALUMNI ITS

TANGGAL	R(mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
Januari	R(mm)					
1	0	0		0	4905.246176	1.635082059
2	60	633.09615	1000	0	4538.342326	1.512780775
3	0	0		0	4538.342326	1.512780775
4	0	0		0	4538.342326	1.512780775
5	20	211.03205		0	4749.374376	1.583124792
6	10	105.516025		0	4854.890401	1.6182968
7	0	0		0	4854.890401	1.6182968
8	0	0		0	4854.890401	1.6182968
9	0	0		0	4854.890401	1.6182968
10	10	105.516025		0	4960.406426	1.653468809
11	0	0		0	4960.406426	1.653468809
12	0	0		0	4960.406426	1.653468809
13	0	0		0	4960.406426	1.653468809
14	0	0		18	4942.406426	1.647468809
15	0	0		18	4924.406426	1.641468809
16	86	907.437815	1000	0	4831.844241	1.610614747
17	0	0		0	4831.844241	1.610614747
18	20	211.03205		0	5042.876291	1.680958764
19	0	0		0	5042.876291	1.680958764
20	0	0		0	5042.876291	1.680958764
21	0	0		0	5042.876291	1.680958764
22	40	422.0641	1000	0	4464.940391	1.488313464
23	43	453.7189075	1000	0	3918.659299	1.306219766
24	0	0		0	3918.659299	1.306219766
25	0	0		0	3918.659299	1.306219766
26	0	0		0	3918.659299	1.306219766
27	0	0		18	3900.659299	1.300219766
28	0	0		18	3882.659299	1.294219766
29	0	0		18	3864.659299	1.288219766
30	0	0		18	3846.659299	1.282219766
31	0	0		18	3828.659299	1.276219766
Februari				126		
1	0	0		18	3810.659299	1.270219766
2	0	0		18	3792.659299	1.264219766
3	28	295.44487		0	4088.104169	1.36270139
4	8	84.41282		0	4172.516989	1.390838996
5	6	63.309615		0	4235.826604	1.411942201
6	0	0		0	4235.826604	1.411942201
7	0	0		0	4235.826604	1.411942201
8	0	0		0	4235.826604	1.411942201
9	20	211.03205		0	4446.858654	1.482286218
10	0	0		0	4446.858654	1.482286218
11	0	0		0	4446.858654	1.482286218
12	0	0		0	4446.858654	1.482286218
13	0	0		18	4428.858654	1.476286218
14	0	0		18	4410.858654	1.470286218
15	0	0		18	4392.858654	1.464286218
16	0	0		18	4374.858654	1.458286218
17	0	0		18	4356.858654	1.452286218
18	0	0		18	4338.858654	1.446286218
19	0	0		18	4320.858654	1.440286218
20	0	0		18	4302.858654	1.434286218
21	0	0		18	4284.858654	1.428286218
22	0	0		18	4266.858654	1.422286218
23	0	0		18	4248.858654	1.416286218
24	0	0		18	4230.858654	1.410286218
25	90	949.644225	1000	0	4180.502879	1.39350096
26	0	0		0	4180.502879	1.39350096
27	0	0		0	4180.502879	1.39350096
28	50	527.580125		0	4708.083004	1.569361001
Maret				252		
1	0	0		0	4708.083004	1.569361001
2	20	211.03205		0	4919.115054	1.639705018
3	50	527.580125	1000	0	4446.695179	1.482231726
4	20	211.03205		0	4657.727229	1.552575743
5	0	0		0	4657.727229	1.552575743
6	0	0		0	4657.727229	1.552575743
7	0	0		0	4657.727229	1.552575743
8	0	0		18	4639.727229	1.546575743
9	0	0		18	4621.727229	1.540575743
10	50	527.580125	1000	0	4149.307354	1.383102451

11	0	0		0	4149.307354	1.383102451
12	15	158.2740375		0	4307.581391	1.435860464
13	0	0		0	4307.581391	1.435860464
14	0	0		0	4307.581391	1.435860464
15	0	0		0	4307.581391	1.435860464
16	0	0		18	4289.581391	1.429860464
17	0	0		18	4271.581391	1.423860464
18	0	0		18	4253.581391	1.417860464
19	0	0		18	4235.581391	1.411860464
20	50	527.580125		0	4763.161516	1.587720505
21	30	316.548075	1000	0	4079.709591	1.359903197
22	0	0		0	4079.709591	1.359903197
23	0	0		0	4079.709591	1.359903197
24	0	0		0	4079.709591	1.359903197
25	0	0		18	4061.709591	1.353903197
26	0	0		18	4043.709591	1.347903197
27	0	0		18	4025.709591	1.341903197
28	0	0		18	4007.709591	1.335903197
29	0	0		18	3989.709591	1.329903197
30	0	0		18	3971.709591	1.323903197
31	0	0		18	3953.709591	1.317903197
April				234		
1	0	0		18	3935.709591	1.311903197
2	0	0		18	3917.709591	1.305903197
3	0	0		18	3899.709591	1.299903197
4	0	0		18	3881.709591	1.293903197
5	0	0		18	3863.709591	1.287903197
6	0	0		18	3845.709591	1.281903197
7	0	0		18	3827.709591	1.275903197
8	0	0		18	3809.709591	1.269903197
9	0	0		18	3791.709591	1.263903197
10	0	0		18	3773.709591	1.257903197
11	0	0		18	3755.709591	1.251903197
12	0	0		18	3737.709591	1.245903197
13	0	0		18	3719.709591	1.239903197
14	0	0		18	3701.709591	1.233903197
15	0	0		18	3683.709591	1.227903197
16	0	0		18	3665.709591	1.221903197
17	0	0		18	3647.709591	1.215903197
18	0	0		18	3629.709591	1.209903197
19	0	0		18	3611.709591	1.203903197
20	0	0		18	3593.709591	1.197903197
21	0	0		18	3575.709591	1.191903197
22	0	0		18	3557.709591	1.185903197
23	0	0		18	3539.709591	1.179903197
24	0	0		18	3521.709591	1.173903197
25	0	0		18	3503.709591	1.167903197
26	0	0		18	3485.709591	1.161903197
27	0	0		18	3467.709591	1.155903197
28	0	0		18	3449.709591	1.149903197
29	0	0		18	3431.709591	1.143903197
30	0	0		18	3413.709591	1.137903197

Mei				540		
1	0	0		18	3395.709591	1.131903197
2	15	158.2740375		0	3553.983629	1.18466121
3	0	0		0	3553.983629	1.18466121
4	0	0		0	3553.983629	1.18466121
5	0	0		0	3553.983629	1.18466121
6	0	0		18	3535.983629	1.17866121
7	0	0		18	3517.983629	1.17266121
8	0	0		18	3499.983629	1.16666121
9	0	0		18	3481.983629	1.16066121
10	0	0		18	3463.983629	1.15466121
11	0	0		18	3445.983629	1.14866121
12	0	0		18	3427.983629	1.14266121
13	0	0		18	3409.983629	1.13666121
14	0	0		18	3391.983629	1.13066121
15	0	0		18	3373.983629	1.12466121
16	0	0		18	3355.983629	1.11866121
17	0	0		18	3337.983629	1.11266121
18	0	0		18	3319.983629	1.10666121
19	0	0		18	3301.983629	1.10066121
20	0	0		18	3283.983629	1.09466121
21	0	0		18	3265.983629	1.08866121
22	0	0		18	3247.983629	1.08266121
23	0	0		18	3229.983629	1.07666121
24	0	0		18	3211.983629	1.07066121
25	0	0		18	3193.983629	1.06466121
26	0	0		18	3175.983629	1.05866121
27	0	0		18	3157.983629	1.05266121
28	0	0		18	3139.983629	1.04666121
29	0	0		18	3121.983629	1.04066121
30	0	0		18	3103.983629	1.03466121
31	0	0		18	3085.983629	1.02866121
Juni				486		
1	0	0		18	3067.983629	1.02266121
2	0	0		18	3049.983629	1.01666121
3	0	0		18	3031.983629	1.01066121
4	0	0		18	3013.983629	1.00466121
5	0	0		18	2995.983629	0.99866121
6	0	0		18	2977.983629	0.99266121
7	0	0		18	2959.983629	0.98666121
8	0	0		18	2941.983629	0.98066121
9	0	0		18	2923.983629	0.97466121
10	0	0		18	2905.983629	0.96866121
11	0	0		18	2887.983629	0.96266121
12	0	0		18	2869.983629	0.95666121
13	0	0		18	2851.983629	0.95066121
14	0	0		18	2833.983629	0.94466121
15	0	0		18	2815.983629	0.93866121
16	0	0		18	2797.983629	0.93266121
17	0	0		18	2779.983629	0.92666121
18	0	0		18	2761.983629	0.92066121
19	0	0		18	2743.983629	0.91466121
20	0	0		18	2725.983629	0.90866121
21	0	0		18	2707.983629	0.90266121
22	0	0		18	2689.983629	0.89666121
23	0	0		18	2671.983629	0.89066121
24	0	0		18	2653.983629	0.88466121
25	0	0		18	2635.983629	0.87866121
26	0	0		18	2617.983629	0.87266121
27	0	0		18	2599.983629	0.86666121
28	0	0		18	2581.983629	0.86066121
29	0	0		18	2563.983629	0.85466121
30	0	0		18	2545.983629	0.84866121
Juli				540		
1	0	0		18	2527.983629	0.84266121
2	0	0		18	2509.983629	0.83666121
3	0	0		18	2491.983629	0.83066121
4	0	0		18	2473.983629	0.82466121
5	0	0		18	2455.983629	0.81866121
6	0	0		18	2437.983629	0.81266121
7	0	0		18	2419.983629	0.80666121
8	0	0		18	2401.983629	0.80066121
9	0	0		18	2383.983629	0.79466121
10	0	0		18	2365.983629	0.78866121

11	0	0		18	2347.983629	0.78266121
12	0	0		18	2329.983629	0.77666121
13	0	0		18	2311.983629	0.77066121
14	0	0		18	2293.983629	0.76466121
15	0	0		18	2275.983629	0.75866121
16	0	0		18	2257.983629	0.75266121
17	0	0		18	2239.983629	0.74666121
18	0	0		18	2221.983629	0.74066121
19	0	0		18	2203.983629	0.73466121
20	0	0		18	2185.983629	0.72866121
21	0	0		18	2167.983629	0.72266121
22	0	0		18	2149.983629	0.71666121
23	0	0		18	2131.983629	0.71066121
24	0	0		18	2113.983629	0.70466121
25	0	0		18	2095.983629	0.69866121
26	0	0		18	2077.983629	0.69266121
27	0	0		18	2059.983629	0.68666121
28	0	0		18	2041.983629	0.68066121
29	0	0		18	2023.983629	0.67466121
30	0	0		18	2005.983629	0.66866121
31	0	0		18	1987.983629	0.66266121
Agustus				558		
1	0	0		18	1969.983629	0.65666121
2	0	0		18	1951.983629	0.65066121
3	0	0		18	1933.983629	0.64466121
4	0	0		18	1915.983629	0.63866121
5	0	0		18	1897.983629	0.63266121
6	0	0		18	1879.983629	0.62666121
7	0	0		18	1861.983629	0.62066121
8	0	0		18	1843.983629	0.61466121
9	0	0		18	1825.983629	0.60866121
10	0	0		18	1807.983629	0.60266121
11	0	0		18	1789.983629	0.59666121
12	0	0		18	1771.983629	0.59066121
13	0	0		18	1753.983629	0.58466121
14	0	0		18	1735.983629	0.57866121
15	0	0		18	1717.983629	0.57266121
16	0	0		18	1699.983629	0.56666121
17	0	0		18	1681.983629	0.56066121
18	0	0		18	1663.983629	0.55466121
19	0	0		18	1645.983629	0.54866121
20	0	0		18	1627.983629	0.54266121
21	0	0		18	1609.983629	0.53666121
22	0	0		18	1591.983629	0.53066121
23	0	0		18	1573.983629	0.52466121
24	0	0		18	1555.983629	0.51866121
25	0	0		18	1537.983629	0.51266121
26	0	0		18	1519.983629	0.50666121
27	0	0		18	1501.983629	0.50066121
28	0	0		18	1483.983629	0.49466121
29	0	0		18	1465.983629	0.48866121
30	0	0		18	1447.983629	0.48266121
31	0	0		18	1429.983629	0.47666121

September				558		
1	0	0		18	1411.983629	0.47066121
2	0	0		18	1393.983629	0.46466121
3	0	0		18	1375.983629	0.45866121
4	0	0		18	1357.983629	0.45266121
5	0	0		18	1339.983629	0.44666121
6	0	0		18	1321.983629	0.44066121
7	0	0		18	1303.983629	0.43466121
8	0	0		18	1285.983629	0.42866121
9	0	0		18	1267.983629	0.42266121
10	0	0		18	1249.983629	0.41666121
11	0	0		18	1231.983629	0.41066121
12	0	0		18	1213.983629	0.40466121
13	0	0		18	1195.983629	0.39866121
14	0	0		18	1177.983629	0.39266121
15	0	0		18	1159.983629	0.38666121
16	0	0		18	1141.983629	0.38066121
17	0	0		18	1123.983629	0.37466121
18	0	0		18	1105.983629	0.36866121
19	0	0		18	1087.983629	0.36266121
20	0	0		18	1069.983629	0.35666121
21	0	0		18	1051.983629	0.35066121
22	0	0		18	1033.983629	0.34466121
23	0	0		18	1015.983629	0.33866121
24	0	0		18	997.9836288	0.33266121
25	0	0		18	979.9836288	0.32666121
26	0	0		18	961.9836288	0.32066121
27	0	0		18	943.9836288	0.31466121
28	0	0		18	925.9836288	0.30866121
29	0	0		18	907.9836288	0.30266121
30	0	0		18	889.9836288	0.29666121
Oktober				540		
1	0	0		18	871.9836288	0.29066121
2	0	0		18	853.9836288	0.28466121
3	0	0		18	835.9836288	0.27866121
4	0	0		18	817.9836288	0.27266121
5	0	0		18	799.9836288	0.26666121
6	0	0		18	781.9836288	0.26066121
7	0	0		18	763.9836288	0.25466121
8	0	0		18	745.9836288	0.24866121
9	0	0		18	727.9836288	0.24266121
10	0	0		18	709.9836288	0.23666121
11	0	0		18	691.9836288	0.23066121
12	0	0		18	673.9836288	0.22466121
13	0	0		18	655.9836288	0.21866121
14	0	0		18	637.9836288	0.21266121
15	0	0		18	619.9836288	0.20666121
16	0	0		18	601.9836288	0.20066121
17	0	0		18	583.9836288	0.19466121
18	0	0		18	565.9836288	0.18866121
19	0	0		18	547.9836288	0.18266121
20	0	0		18	529.9836288	0.17666121
21	0	0		18	511.9836288	0.17066121
22	0	0		18	493.9836288	0.16466121
23	0	0		18	475.9836288	0.15866121
24	0	0		18	457.9836288	0.15266121
25	0	0		18	439.9836288	0.14666121
26	0	0		18	421.9836288	0.14066121
27	0	0		18	403.9836288	0.13466121
28	0	0		18	385.9836288	0.12866121
29	0	0		18	367.9836288	0.12266121
30	33	348.2028825		0	716.1865113	0.238728837
31	0	0		0	716.1865113	0.238728837
November				522		
1	0	0		0	716.1865113	0.238728837
2	43	453.7189075		0	1169.905419	0.389968473
3	0	0		0	1169.905419	0.389968473
4	0	0		0	1169.905419	0.389968473
5	0	0		0	1169.905419	0.389968473
6	0	0		18	1151.905419	0.383968473
7	4	42.20641		0	1194.111829	0.398037276
8	0	0		0	1194.111829	0.398037276
9	0	0		0	1194.111829	0.398037276
10	0	0		0	1194.111829	0.398037276

11	24	253.23846		0	1447.350289	0.482450096
12	0	0		0	1447.350289	0.482450096
13	0	0		0	1447.350289	0.482450096
14	0	0		0	1447.350289	0.482450096
15	0	0		18	1429.350289	0.476450096
16	0	0		18	1411.350289	0.470450096
17	0	0		18	1393.350289	0.464450096
18	0	0		18	1375.350289	0.458450096
19	0	0		18	1357.350289	0.452450096
20	75	791.3701875		0	2148.720476	0.716240159
21	0	0		0	2148.720476	0.716240159
22	0	0		0	2148.720476	0.716240159
23	0	0		0	2148.720476	0.716240159
24	0	0		18	2130.720476	0.710240159
25	22	232.135255		0	2362.855731	0.787618577
26	35	369.3060875		0	2732.161819	0.910720606
27	0	0		0	2732.161819	0.910720606
28	0	0		0	2732.161819	0.910720606
29	0	0		0	2732.161819	0.910720606
30	0	0		18	2714.161819	0.904720606
Desember				144		
1	0	0		18	2696.161819	0.898720606
2	0	0		18	2678.161819	0.892720606
3	0	0		18	2660.161819	0.886720606
4	0	0		18	2642.161819	0.880720606
5	0	0		18	2624.161819	0.874720606
6	0	0		18	2606.161819	0.868720606
7	13	137.1708325		0	2743.332651	0.914444217
8	14	147.722435		0	2891.055086	0.963685029
9	0	0		0	2891.055086	0.963685029
10	30	316.548075		0	3207.603161	1.069201054
11	45	474.8221125		0	3682.425274	1.227475091
12	0	0		0	3682.425274	1.227475091
13	49	517.0285225		0	4199.453796	1.399817932
14	35	369.3060875		0	4568.759884	1.522919961
15	53	559.2349325	1000	0	4127.994816	1.375998272
16	27	284.8932675		0	4412.888084	1.470962695
17	60	633.09615		0	5045.984234	1.681994745
18	0	0		0	5045.984234	1.681994745
19	0	0		0	5045.984234	1.681994745
20	0	0		0	5045.984234	1.681994745
21	0	0		18	5027.984234	1.675994745
22	0	0		18	5009.984234	1.669994745
23	0	0		18	4991.984234	1.663994745
24	0	0		18	4973.984234	1.657994745
25	0	0		18	4955.984234	1.651994745
26	0	0		18	4937.984234	1.645994745
27	20	211.03205	1000	0	4149.016284	1.383005428
28	60	633.09615		0	4782.112434	1.594037478
29	0	0		0	4782.112434	1.594037478
30	0	0		0	4782.112434	1.594037478
31	24	253.23846		0	5035.350894	1.678450298

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	72	1002.876012		0	6648.728696	2.216242899
2	49	682.5128415		0	7331.241538	2.443747179
3	0	0		0	7331.241538	2.443747179
4	0	0		0	7331.241538	2.443747179
5	33	459.6515055	1500	0	6290.893043	2.096964348
6	24	334.292004		0	6625.185047	2.208395016
7	0	0		0	6625.185047	2.208395016
8	0	0		0	6625.185047	2.208395016
9	0	0		0	6625.185047	2.208395016
10	32	445.722672		0	7070.907719	2.35696924
11	0	0		0	7070.907719	2.35696924
12	6	83.573001		0	7154.48072	2.384826907
13	0	0		0	7154.48072	2.384826907
14	0	0		0	7154.48072	2.384826907
15	52	724.299342	1500	0	6378.780062	2.126260021
16	61	849.6588435		0	7228.438906	2.409479635
17	20	278.57667		0	7507.015576	2.502338525
18	16	222.861336	1500	0	6229.876912	2.076625637
19	0	0		0	6229.876912	2.076625637
20	55	766.0858425	1500	0	5495.962754	1.831987585
21	0	0		0	5495.962754	1.831987585
22	7	97.5018345		0	5593.464589	1.864488196
23	6	83.573001		0	5677.03759	1.892345863
24	4	55.715334		0	5732.752924	1.910917641
25	9	125.3595015		0	5858.112425	1.952704142
26	0	0		0	5858.112425	1.952704142
27	0	0		0	5858.112425	1.952704142
28	0	0		0	5858.112425	1.952704142
29	0	0		18	5840.112425	1.946704142
30	85	1183.950848		0	7024.063273	2.341354424
31	20	278.57667	1500	0	5802.639943	1.934213314
Februari						
1	11	153.2171685		0	5955.857111	1.985285704
2	10	139.288335		0	6095.145446	2.031715149
3	24	334.292004		0	6429.43745	2.143145817
4	10	139.288335		0	6568.725785	2.189575262
5	0	0		0	6568.725785	2.189575262
6	0	0		0	6568.725785	2.189575262
7	9	125.3595015		0	6694.085287	2.231361762
8	67	933.2318445	1500	0	6127.317131	2.042439044
9	5	69.6441675		0	6196.961299	2.065653766
10	13	181.0748355		0	6378.036134	2.126012045
11	27	376.0785045		0	6754.114639	2.251371546
12	21	292.5055035		0	7046.620142	2.348873381
13	9	125.3595015		0	7171.979644	2.390659881
14	7	97.5018345		0	7269.481478	2.423160493
15	10	139.288335		0	7408.769813	2.469589938
16	55	766.0858425	1500	0	6674.855656	2.224951885
17	0	0		0	6674.855656	2.224951885
18	3	41.7865005		0	6716.642156	2.238880719
19	0	0		0	6716.642156	2.238880719
20	3	41.7865005		0	6758.428657	2.252809552
21	4	55.715334		0	6814.143991	2.27138133
22	0	0		0	6814.143991	2.27138133
23	0	0		0	6814.143991	2.27138133
24	0	0		0	6814.143991	2.27138133
25	38	529.295673		0	7343.439664	2.447813221
26	19	264.6478365	1500	0	6108.0875	2.036029167
27	0	0		0	6108.0875	2.036029167
28	23	320.3631705		0	6428.450671	2.14281689
Maret						
1	15	208.9325025		0	6637.383173	2.212461058
2	0	0		0	6637.383173	2.212461058
3	0	0		0	6637.383173	2.212461058
4	0	0		0	6637.383173	2.212461058
5	0	0		18	6619.383173	2.206461058
6	25	348.2208375		0	6967.604011	2.32253467
7	12	167.146002		0	7134.750013	2.378250004
8	0	0		0	7134.750013	2.378250004
9	0	0		0	7134.750013	2.378250004
10	0	0		0	7134.750013	2.378250004



11	0	0		18	7116.750013	2.372250004
12	0	0		0	7116.750013	2.372250004
13	19	264.6478365	1500	0	5881.397849	1.96046595
14	11	153.2171685		0	6034.615018	2.011538339
15	7	97.5018345		0	6132.116852	2.044038951
16	5	69.6441675		0	6201.76102	2.067253673
17	14	195.003669		0	6396.764689	2.132254896
18	20	278.57667		0	6675.341359	2.225113786
19	0	0		0	6675.341359	2.225113786
20	21	292.5055035		0	6967.846862	2.322615621
21	0	0		0	6967.846862	2.322615621
22	0	0		0	6967.846862	2.322615621
23	0	0		0	6967.846862	2.322615621
24	7	97.5018345		0	7065.348697	2.355116232
25	0	0		0	7065.348697	2.355116232
26	5	69.6441675		0	7134.992864	2.378330955
27	35	487.5091725	1500	0	6122.502037	2.040834012
28	0	0		0	6122.502037	2.040834012
29	0	0		0	6122.502037	2.040834012
30	0	0		0	6122.502037	2.040834012
31	0	0		18	6104.502037	2.034834012
April						
1	0	0		0	6104.502037	2.034834012
2	8	111.430668		0	6215.932705	2.071977568
3	0	0		0	6215.932705	2.071977568
4	0	0		0	6215.932705	2.071977568
5	19	264.6478365		0	6480.580541	2.160193514
6	0	0		0	6480.580541	2.160193514
7	0	0		0	6480.580541	2.160193514
8	30	417.865005		0	6898.445546	2.299481849
9	0	0		0	6898.445546	2.299481849
10	0	0		0	6898.445546	2.299481849
11	0	0		0	6898.445546	2.299481849
12	0	0		18	6880.445546	2.293481849
13	0	0		18	6862.445546	2.287481849
14	0	0		18	6844.445546	2.281481849
15	22	306.434337		0	7150.879883	2.383626628
16	0	0		0	7150.879883	2.383626628
17	0	0		0	7150.879883	2.383626628
18	0	0		0	7150.879883	2.383626628
19	0	0		18	7132.879883	2.377626628
20	0	0		18	7114.879883	2.371626628
21	19	264.6478365		0	7379.52772	2.459842573
22	0	0		0	7379.52772	2.459842573
23	0	0		0	7379.52772	2.459842573
24	0	0		0	7379.52772	2.459842573
25	0	0		18	7361.52772	2.453842573
26	0	0		18	7343.52772	2.447842573
27	4	55.715334		0	7399.243054	2.466414351
28	0	0		0	7399.243054	2.466414351
29	0	0		0	7399.243054	2.466414351
30	0	0		0	7399.243054	2.466414351

Mei						
1	0	0		18	7381.243054	2.460414351
2	0	0		18	7363.243054	2.454414351
3	9	125.3595015		0	7488.602555	2.496200852
4	0	0		0	7488.602555	2.496200852
5	0	0		0	7488.602555	2.496200852
6	0	0		0	7488.602555	2.496200852
7	0	0		18	7470.602555	2.490200852
8	0	0		18	7452.602555	2.484200852
9	0	0		18	7434.602555	2.478200852
10	0	0		18	7416.602555	2.472200852
11	0	0		18	7398.602555	2.466200852
12	0	0		18	7380.602555	2.460200852
13	0	0		18	7362.602555	2.454200852
14	24	334.292004	1500	0	6196.894559	2.06563152
15	17	236.7901695		0	6433.684729	2.144561576
16	0	0		0	6433.684729	2.144561576
17	0	0		0	6433.684729	2.144561576
18	0	0		0	6433.684729	2.144561576
19	0	0		18	6415.684729	2.138561576
20	0	0		18	6397.684729	2.132561576
21	0	0		18	6379.684729	2.126561576
22	0	0		18	6361.684729	2.120561576
23	0	0		18	6343.684729	2.114561576
24	0	0		18	6325.684729	2.108561576
25	0	0		18	6307.684729	2.102561576
26	0	0		18	6289.684729	2.096561576
27	0	0		18	6271.684729	2.090561576
28	0	0		18	6253.684729	2.084561576
29	0	0		18	6235.684729	2.078561576
30	0	0		18	6217.684729	2.072561576
31	0	0		18	6199.684729	2.066561576
Juni						
1	0	0		18	6181.684729	2.060561576
2	0	0		18	6163.684729	2.054561576
3	0	0		18	6145.684729	2.048561576
4	0	0		18	6127.684729	2.042561576
5	0	0		18	6109.684729	2.036561576
6	0	0		18	6091.684729	2.030561576
7	0	0		18	6073.684729	2.024561576
8	0	0		18	6055.684729	2.018561576
9	0	0		18	6037.684729	2.012561576
10	0	0		18	6019.684729	2.006561576
11	0	0		18	6001.684729	2.000561576
12	0	0		18	5983.684729	1.994561576
13	0	0		18	5965.684729	1.988561576
14	0	0		18	5947.684729	1.982561576
15	0	0		18	5929.684729	1.976561576
16	0	0		18	5911.684729	1.970561576
17	0	0		18	5893.684729	1.964561576
18	0	0		18	5875.684729	1.958561576
19	0	0		18	5857.684729	1.952561576
20	0	0		18	5839.684729	1.946561576
21	0	0		18	5821.684729	1.940561576
22	0	0		18	5803.684729	1.934561576
23	0	0		18	5785.684729	1.928561576
24	0	0		18	5767.684729	1.922561576
25	0	0		18	5749.684729	1.916561576
26	0	0		18	5731.684729	1.910561576
27	0	0		18	5713.684729	1.904561576
28	0	0		18	5695.684729	1.898561576
29	0	0		18	5677.684729	1.892561576
30	0	0		18	5659.684729	1.886561576
Juli						
1	0	0		18	5641.684729	1.880561576
2	0	0		18	5623.684729	1.874561576
3	0	0		18	5605.684729	1.868561576
4	0	0		18	5587.684729	1.862561576
5	0	0		18	5569.684729	1.856561576
6	0	0		18	5551.684729	1.850561576
7	0	0		18	5533.684729	1.844561576
8	0	0		18	5515.684729	1.838561576
9	0	0		18	5497.684729	1.832561576
10	0	0		18	5479.684729	1.826561576

11	0	0		18	5461.684729	1.820561576
12	0	0		18	5443.684729	1.814561576
13	0	0		18	5425.684729	1.808561576
14	0	0		18	5407.684729	1.802561576
15	0	0		18	5389.684729	1.796561576
16	0	0		18	5371.684729	1.790561576
17	0	0		18	5353.684729	1.784561576
18	0	0		18	5335.684729	1.778561576
19	0	0		18	5317.684729	1.772561576
20	0	0		18	5299.684729	1.766561576
21	0	0		18	5281.684729	1.760561576
22	0	0		18	5263.684729	1.754561576
23	0	0		18	5245.684729	1.748561576
24	0	0		18	5227.684729	1.742561576
25	0	0		18	5209.684729	1.736561576
26	0	0		18	5191.684729	1.730561576
27	0	0		18	5173.684729	1.724561576
28	0	0		18	5155.684729	1.718561576
29	0	0		18	5137.684729	1.712561576
30	0	0		18	5119.684729	1.706561576
31	0	0		18	5101.684729	1.700561576
Agustus						
1	0	0		18	5083.684729	1.694561576
2	0	0		18	5065.684729	1.688561576
3	0	0		18	5047.684729	1.682561576
4	0	0		18	5029.684729	1.676561576
5	0	0		18	5011.684729	1.670561576
6	0	0		18	4993.684729	1.664561576
7	0	0		18	4975.684729	1.658561576
8	0	0		18	4957.684729	1.652561576
9	0	0		18	4939.684729	1.646561576
10	0	0		18	4921.684729	1.640561576
11	0	0		18	4903.684729	1.634561576
12	0	0		18	4885.684729	1.628561576
13	0	0		18	4867.684729	1.622561576
14	0	0		18	4849.684729	1.616561576
15	0	0		18	4831.684729	1.610561576
16	0	0		18	4813.684729	1.604561576
17	0	0		18	4795.684729	1.598561576
18	0	0		18	4777.684729	1.592561576
19	0	0		18	4759.684729	1.586561576
20	0	0		18	4741.684729	1.580561576
21	0	0		18	4723.684729	1.574561576
22	0	0		18	4705.684729	1.568561576
23	0	0		18	4687.684729	1.562561576
24	0	0		18	4669.684729	1.556561576
25	0	0		18	4651.684729	1.550561576
26	0	0		18	4633.684729	1.544561576
27	0	0		18	4615.684729	1.538561576
28	0	0		18	4597.684729	1.532561576
29	0	0		18	4579.684729	1.526561576
30	0	0		18	4561.684729	1.520561576
31	0	0		18	4543.684729	1.514561576

September						
1	0	0		18	4525.684729	1.508561576
2	0	0		18	4507.684729	1.502561576
3	0	0		18	4489.684729	1.496561576
4	0	0		18	4471.684729	1.490561576
5	0	0		18	4453.684729	1.484561576
6	0	0		18	4435.684729	1.478561576
7	0	0		18	4417.684729	1.472561576
8	0	0		18	4399.684729	1.466561576
9	0	0		18	4381.684729	1.460561576
10	0	0		18	4363.684729	1.454561576
11	0	0		18	4345.684729	1.448561576
12	0	0		18	4327.684729	1.442561576
13	0	0		18	4309.684729	1.436561576
14	0	0		18	4291.684729	1.430561576
15	0	0		18	4273.684729	1.424561576
16	0	0		18	4255.684729	1.418561576
17	0	0		18	4237.684729	1.412561576
18	0	0		18	4219.684729	1.406561576
19	0	0		18	4201.684729	1.400561576
20	0	0		18	4183.684729	1.394561576
21	0	0		18	4165.684729	1.388561576
22	0	0		18	4147.684729	1.382561576
23	0	0		18	4129.684729	1.376561576
24	0	0		18	4111.684729	1.370561576
25	0	0		18	4093.684729	1.364561576
26	0	0		18	4075.684729	1.358561576
27	0	0		18	4057.684729	1.352561576
28	0	0		18	4039.684729	1.346561576
29	0	0		18	4021.684729	1.340561576
30	0	0		18	4003.684729	1.334561576
Oktober						
1	0	0		18	3985.684729	1.328561576
2	0	0		18	3967.684729	1.322561576
3	0	0		18	3949.684729	1.316561576
4	0	0		18	3931.684729	1.310561576
5	0	0		18	3913.684729	1.304561576
6	0	0		18	3895.684729	1.298561576
7	0	0		18	3877.684729	1.292561576
8	0	0		18	3859.684729	1.286561576
9	0	0		18	3841.684729	1.280561576
10	0	0		18	3823.684729	1.274561576
11	0	0		18	3805.684729	1.268561576
12	4	55.715334		18	3843.400063	1.281133354
13	0	0		18	3825.400063	1.275133354
14	0	0		18	3807.400063	1.269133354
15	0	0		18	3789.400063	1.263133354
16	0	0		18	3771.400063	1.257133354
17	0	0		18	3753.400063	1.251133354
18	0	0		18	3735.400063	1.245133354
19	0	0		18	3717.400063	1.239133354
20	0	0		18	3699.400063	1.233133354
21	0	0		18	3681.400063	1.227133354
22	0	0		18	3663.400063	1.221133354
23	0	0		18	3645.400063	1.215133354
24	0	0		18	3627.400063	1.209133354
25	0	0		18	3609.400063	1.203133354
26	0	0		18	3591.400063	1.197133354
27	0	0		18	3573.400063	1.191133354
28	0	0		18	3555.400063	1.185133354
29	0	0		18	3537.400063	1.179133354
30	0	0		18	3519.400063	1.173133354
31	0	0		18	3501.400063	1.167133354
November						
1	0	0		18	3483.400063	1.161133354
2	0	0		18	3465.400063	1.155133354
3	0	0		18	3447.400063	1.149133354
4	0	0		18	3429.400063	1.143133354
5	0	0		18	3411.400063	1.137133354
6	0	0		18	3393.400063	1.131133354
7	0	0		18	3375.400063	1.125133354
8	10	139.288335		0	3514.688398	1.171562799
9	0	0		0	3514.688398	1.171562799
10	0	0		0	3514.688398	1.171562799

11	0	0		0	3514.688398	1.171562799
12	0	0		18	3496.688398	1.165562799
13	0	0		18	3478.688398	1.159562799
14	0	0		18	3460.688398	1.153562799
15	0	0		18	3442.688398	1.147562799
16	0	0		18	3424.688398	1.141562799
17	0	0		18	3406.688398	1.135562799
18	13	181.0748355		0	3587.763233	1.195921078
19	5	69.6441675		0	3657.407401	1.2191358
20	47	654.6551745		0	4312.062575	1.437354192
21	0	0		0	4312.062575	1.437354192
22	0	0		0	4312.062575	1.437354192
23	0	0		0	4312.062575	1.437354192
24	0	0		18	4294.062575	1.431354192
25	0	0		18	4276.062575	1.425354192
26	0	0		18	4258.062575	1.419354192
27	0	0		18	4240.062575	1.413354192
28	0	0		18	4222.062575	1.407354192
29	0	0		18	4204.062575	1.401354192
30	0	0		18	4186.062575	1.395354192
Desember						
1	47	654.6551745		0	4840.71775	1.613572583
2	31	431.7938385		0	5272.511588	1.757503863
3	24	334.292004		0	5606.803592	1.868934531
4	0	0		0	5606.803592	1.868934531
5	40	557.15334		0	6163.956932	2.054652311
6	0	0		0	6163.956932	2.054652311
7	0	0		0	6163.956932	2.054652311
8	0	0		0	6163.956932	2.054652311
9	0	0		18	6145.956932	2.048652311
10	21	292.5055035		0	6438.462436	2.146154145
11	22	306.434337		0	6744.896773	2.248298924
12	0	0		0	6744.896773	2.248298924
13	0	0		0	6744.896773	2.248298924
14	0	0		0	6744.896773	2.248298924
15	28	390.007338		0	7134.904111	2.37830137
16	0	0		0	7134.904111	2.37830137
17	11	153.2171685		0	7288.121279	2.42937376
18	10	139.288335		0	7427.409614	2.475803205
19	0	0		0	7427.409614	2.475803205
20	10	139.288335	1500	0	6066.697949	2.02223265
21	18	250.719003		0	6317.416952	2.105805651
22	15	208.9325025		0	6526.349455	2.175449818
23	16	222.861336		0	6749.210791	2.24973693
24	0	0		0	6749.210791	2.24973693
25	0	0		0	6749.210791	2.24973693
26	26	362.149671		0	7111.360462	2.370453487
27	64	891.445344	1500	0	6502.805806	2.167601935
28	30	417.865005		0	6920.670811	2.30689027
29	20	278.57667		0	7199.247481	2.39974916
30	45	626.7975075	1500	0	6326.044988	2.108681663
31	48	668.584008		0	6994.628996	2.331542999

## TAMAN ALUMNI ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	94.9644225	1000	0	4130.315316	1.376771772
2	0	0		0	5045.984234	1.681994745
3	6	63.309615	1000	0	4109.293849	1.369764616
4	0	0		0	4109.293849	1.369764616
5	10	105.516025		0	4214.809874	1.404936625
6	0	0		0	4214.809874	1.404936625
7	0	0		0	4214.809874	1.404936625
8	0	0		0	4214.809874	1.404936625
9	120	1266.1923	1000	0	4481.002174	1.493667391
10	9	94.9644225		0	4575.966596	1.525322199
11	0	0		0	4575.966596	1.525322199
12	12	126.61923		0	4702.585826	1.567528609
13	60	633.09615	1000	0	4335.681976	1.445227325
14	0	0		18	4317.681976	1.439227325
15	0	0		18	4299.681976	1.433227325
16	0	0		18	4281.681976	1.427227325
17	21	221.5836525		0	4503.265629	1.501088543
18	0	0		0	4503.265629	1.501088543
19	0	0		0	4503.265629	1.501088543
20	0	0		0	4503.265629	1.501088543
21	10	105.516025		0	4608.781654	1.536260551
22	0	0		0	4608.781654	1.536260551
23	0	0		0	4608.781654	1.536260551
24	0	0		0	4608.781654	1.536260551
25	0	0		18	4590.781654	1.530260551
26	0	0		18	4572.781654	1.524260551
27	0	0		18	4554.781654	1.518260551
28	0	0		18	4536.781654	1.512260551
29	0	0		18	4518.781654	1.506260551
30	0	0		18	4500.781654	1.500260551
31	81	854.6798025	1000	0	4355.461456	1.451820485
Februari				162		
1	0	0		0	4355.461456	1.451820485
2	24	253.23846		0	4608.699916	1.536233305
3	26	274.341665		0	4883.041581	1.627680527
4	0	0		0	4883.041581	1.627680527
5	26	274.341665	1000	0	4157.383246	1.385794415
6	0	0		0	4157.383246	1.385794415
7	0	0		0	4157.383246	1.385794415
8	0	0		0	4157.383246	1.385794415
9	15	158.2740375	1000	0	3315.657284	1.105219095
10	0	0		0	3315.657284	1.105219095
11	0	0		0	3315.657284	1.105219095
12	0	0		0	3315.657284	1.105219095
13	0	0		18	3297.657284	1.099219095
14	0	0		18	3279.657284	1.093219095
15	35	369.3060875		0	3648.963371	1.216321124
16	50	527.580125		0	4176.543496	1.392181165
17	0	0		0	4176.543496	1.392181165
18	0	0		0	4176.543496	1.392181165
19	0	0		0	4176.543496	1.392181165
20	18	189.928845		0	4366.472341	1.45549078
21	15	158.2740375		0	4524.746379	1.508248793
22	30	316.548075	1000	0	3841.294454	1.280431485
23	15	158.2740375		0	3999.568491	1.333189497
24	12	126.61923		0	4126.187721	1.375395907
25	20	211.03205		0	4337.219771	1.445739924
26	21	221.5836525		0	4558.803424	1.519601141
27	50	527.580125	1000	0	4086.383549	1.36212785
28	16	168.82564		0	4255.209189	1.418403063
Maret				36		
1	16	168.82564		0	4424.034829	1.474678276
2	0	0		0	4424.034829	1.474678276
3	19	200.4804475		0	4624.515276	1.541505092
4	5	52.7580125		0	4677.273289	1.559091096
5	20	211.03205		0	4888.305339	1.629435113
6	22	232.135255	1000	0	4120.440594	1.373480198
7	0	0		0	4120.440594	1.373480198
8	0	0		18	4102.440594	1.367480198
9	0	0		18	4084.440594	1.361480198
10	48	506.47692	1000	0	3590.917514	1.196972505

11	0	0		0	3590.917514	1.196972505
12	84	886.33461		0	4477.252124	1.492417375
13	0	0		0	4477.252124	1.492417375
14	0	0		0	4477.252124	1.492417375
15	0	0		0	4477.252124	1.492417375
16	0	0		18	4459.252124	1.486417375
17	73	770.2669825	1000	0	4229.519106	1.409839702
18	0	0		0	4229.519106	1.409839702
19	0	0		0	4229.519106	1.409839702
20	8	84.41282		0	4313.931926	1.437977309
21	0	0		18	4295.931926	1.431977309
22	0	0		18	4277.931926	1.425977309
23	0	0		18	4259.931926	1.419977309
24	0	0		18	4241.931926	1.413977309
25	0	0		18	4223.931926	1.407977309
26	0	0		18	4205.931926	1.401977309
27	0	0		18	4187.931926	1.395977309
28	0	0		18	4169.931926	1.389977309
29	0	0		18	4151.931926	1.383977309
30	20	211.03205		0	4362.963976	1.454321325
31	5	52.7580125		0	4415.721989	1.47190733
April				216		
1	10	105.516025		0	4521.238014	1.507079338
2	0	0		0	4521.238014	1.507079338
3	0	0		0	4521.238014	1.507079338
4	0	0		0	4521.238014	1.507079338
5	0	0		18	4503.238014	1.501079338
6	5	52.7580125		0	4555.996026	1.518665342
7	0	0		0	4555.996026	1.518665342
8	0	0		0	4555.996026	1.518665342
9	0	0		0	4555.996026	1.518665342
10	0	0		18	4537.996026	1.512665342
11	0	0		18	4519.996026	1.506665342
12	0	0		18	4501.996026	1.500665342
13	0	0		18	4483.996026	1.494665342
14	0	0		18	4465.996026	1.488665342
15	0	0		18	4447.996026	1.482665342
16	0	0		18	4429.996026	1.476665342
17	0	0		18	4411.996026	1.470665342
18	0	0		18	4393.996026	1.464665342
19	0	0		18	4375.996026	1.458665342
20	0	0		18	4357.996026	1.452665342
21	10	105.516025		0	4463.512051	1.48783735
22	15	158.2740375		0	4621.786089	1.540595363
23	0	0		0	4621.786089	1.540595363
24	0	0		0	4621.786089	1.540595363
25	0	0		0	4621.786089	1.540595363
26	0	0		18	4603.786089	1.534595363
27	0	0		18	4585.786089	1.528595363
28	10	105.516025		0	4691.302114	1.563767371
29	0	0		0	4691.302114	1.563767371
30	0	0		0	4691.302114	1.563767371

Mei				252		
1	0	0		0	4691.302114	1.563767371
2	0	0		18	4673.302114	1.557767371
3	0	0		18	4655.302114	1.551767371
4	0	0		18	4637.302114	1.545767371
5	0	0		18	4619.302114	1.539767371
6	0	0		18	4601.302114	1.533767371
7	0	0		18	4583.302114	1.527767371
8	0	0		18	4565.302114	1.521767371
9	0	0		18	4547.302114	1.515767371
10	0	0		18	4529.302114	1.509767371
11	25	263.7900625		0	4793.092176	1.597697392
12	0	0		0	4793.092176	1.597697392
13	23	242.6868575	1000	0	4035.779034	1.345259678
14	0	0		0	4035.779034	1.345259678
15	0	0		0	4035.779034	1.345259678
16	15	158.2740375		0	4194.053071	1.39801769
17	0	0		0	4194.053071	1.39801769
18	21	221.5836525		0	4415.636724	1.471878908
19	0	0		0	4415.636724	1.471878908
20	0	0		0	4415.636724	1.471878908
21	0	0		0	4415.636724	1.471878908
22	0	0		18	4397.636724	1.465878908
23	23	242.6868575		0	4640.323581	1.546774527
24	0	0		0	4640.323581	1.546774527
25	0	0		0	4640.323581	1.546774527
26	0	0		0	4640.323581	1.546774527
27	0	0		18	4622.323581	1.540774527
28	0	0		18	4604.323581	1.534774527
29	0	0		18	4586.323581	1.528774527
30	0	0		18	4568.323581	1.522774527
31	0	0		18	4550.323581	1.516774527
Juni				270		
1	0	0		18	4532.323581	1.510774527
2	0	0		18	4514.323581	1.504774527
3	0	0		18	4496.323581	1.498774527
4	0	0		18	4478.323581	1.492774527
5	0	0		18	4460.323581	1.486774527
6	0	0		18	4442.323581	1.480774527
7	0	0		18	4424.323581	1.474774527
8	0	0		18	4406.323581	1.468774527
9	0	0		18	4388.323581	1.462774527
10	50	527.580125		0	4915.903706	1.638634569
11	0	0		0	4915.903706	1.638634569
12	0	0		0	4915.903706	1.638634569
13	0	0		0	4915.903706	1.638634569
14	0	0		18	4897.903706	1.632634569
15	0	0		18	4879.903706	1.626634569
16	0	0		18	4861.903706	1.620634569
17	0	0		18	4843.903706	1.614634569
18	0	0		18	4825.903706	1.608634569
19	0	0		18	4807.903706	1.602634569
20	0	0		18	4789.903706	1.596634569
21	0	0		18	4771.903706	1.590634569
22	0	0		18	4753.903706	1.584634569
23	0	0		18	4735.903706	1.578634569
24	0	0		18	4717.903706	1.572634569
25	0	0		18	4699.903706	1.566634569
26	0	0		18	4681.903706	1.560634569
27	0	0		18	4663.903706	1.554634569
28	0	0		18	4645.903706	1.548634569
29	0	0		18	4627.903706	1.542634569
30	0	0		18	4609.903706	1.536634569
Juli				468		
1	0	0		18	4591.903706	1.530634569
2	0	0		18	4573.903706	1.524634569
3	0	0		18	4555.903706	1.518634569
4	0	0		18	4537.903706	1.512634569
5	0	0		18	4519.903706	1.506634569
6	0	0		18	4501.903706	1.500634569
7	0	0		18	4483.903706	1.494634569
8	0	0		18	4465.903706	1.488634569
9	0	0		18	4447.903706	1.482634569
10	0	0		18	4429.903706	1.476634569



11	0	0		18	4411.903706	1.470634569
12	0	0		18	4393.903706	1.464634569
13	0	0		18	4375.903706	1.458634569
14	0	0		18	4357.903706	1.452634569
15	0	0		18	4339.903706	1.446634569
16	0	0		18	4321.903706	1.440634569
17	0	0		18	4303.903706	1.434634569
18	0	0		18	4285.903706	1.428634569
19	0	0		18	4267.903706	1.422634569
20	0	0		18	4249.903706	1.416634569
21	0	0		18	4231.903706	1.410634569
22	0	0		18	4213.903706	1.404634569
23	0	0		18	4195.903706	1.398634569
24	0	0		18	4177.903706	1.392634569
25	0	0		18	4159.903706	1.386634569
26	0	0		18	4141.903706	1.380634569
27	0	0		18	4123.903706	1.374634569
28	0	0		18	4105.903706	1.368634569
29	0	0		18	4087.903706	1.362634569
30	0	0		18	4069.903706	1.356634569
31	0	0		18	4051.903706	1.350634569
Agustus				558		
1	0	0		18	4033.903706	1.344634569
2	0	0		18	4015.903706	1.338634569
3	0	0		18	3997.903706	1.332634569
4	0	0		18	3979.903706	1.326634569
5	0	0		18	3961.903706	1.320634569
6	0	0		18	3943.903706	1.314634569
7	0	0		18	3925.903706	1.308634569
8	0	0		18	3907.903706	1.302634569
9	0	0		18	3889.903706	1.296634569
10	0	0		18	3871.903706	1.290634569
11	0	0		18	3853.903706	1.284634569
12	0	0		18	3835.903706	1.278634569
13	0	0		18	3817.903706	1.272634569
14	0	0		18	3799.903706	1.266634569
15	0	0		18	3781.903706	1.260634569
16	0	0		18	3763.903706	1.254634569
17	0	0		18	3745.903706	1.248634569
18	0	0		18	3727.903706	1.242634569
19	0	0		18	3709.903706	1.236634569
20	0	0		18	3691.903706	1.230634569
21	0	0		18	3673.903706	1.224634569
22	0	0		18	3655.903706	1.218634569
23	0	0		18	3637.903706	1.212634569
24	0	0		18	3619.903706	1.206634569
25	0	0		18	3601.903706	1.200634569
26	0	0		18	3583.903706	1.194634569
27	0	0		18	3565.903706	1.188634569
28	0	0		18	3547.903706	1.182634569
29	0	0		18	3529.903706	1.176634569
30	0	0		18	3511.903706	1.170634569
31	0	0		18	3493.903706	1.164634569

September				558		
1	0	0		18	3475.903706	1.158634569
2	0	0		18	3457.903706	1.152634569
3	0	0		18	3439.903706	1.146634569
4	0	0		18	3421.903706	1.140634569
5	0	0		18	3403.903706	1.134634569
6	0	0		18	3385.903706	1.128634569
7	0	0		18	3367.903706	1.122634569
8	0	0		18	3349.903706	1.116634569
9	0	0		18	3331.903706	1.110634569
10	0	0		18	3313.903706	1.104634569
11	0	0		18	3295.903706	1.098634569
12	0	0		18	3277.903706	1.092634569
13	0	0		18	3259.903706	1.086634569
14	0	0		18	3241.903706	1.080634569
15	0	0		18	3223.903706	1.074634569
16	0	0		18	3205.903706	1.068634569
17	0	0		18	3187.903706	1.062634569
18	0	0		18	3169.903706	1.056634569
19	0	0		18	3151.903706	1.050634569
20	0	0		18	3133.903706	1.044634569
21	0	0		18	3115.903706	1.038634569
22	0	0		18	3097.903706	1.032634569
23	0	0		18	3079.903706	1.026634569
24	0	0		18	3061.903706	1.020634569
25	0	0		18	3043.903706	1.014634569
26	0	0		18	3025.903706	1.008634569
27	0	0		18	3007.903706	1.002634569
28	0	0		18	2989.903706	0.996634569
29	0	0		18	2971.903706	0.990634569
30	0	0		18	2953.903706	0.984634569
Oktober				540		
1	0	0		18	2935.903706	0.978634569
2	0	0		18	2917.903706	0.972634569
3	0	0		18	2899.903706	0.966634569
4	0	0		18	2881.903706	0.960634569
5	0	0		18	2863.903706	0.954634569
6	0	0		18	2845.903706	0.948634569
7	0	0		18	2827.903706	0.942634569
8	0	0		18	2809.903706	0.936634569
9	0	0		18	2791.903706	0.930634569
10	0	0		18	2773.903706	0.924634569
11	0	0		18	2755.903706	0.918634569
12	0	0		18	2737.903706	0.912634569
13	0	0		18	2719.903706	0.906634569
14	0	0		18	2701.903706	0.900634569
15	0	0		18	2683.903706	0.894634569
16	0	0		18	2665.903706	0.888634569
17	0	0		18	2647.903706	0.882634569
18	0	0		18	2629.903706	0.876634569
19	0	0		18	2611.903706	0.870634569
20	0	0		18	2593.903706	0.864634569
21	0	0		18	2575.903706	0.858634569
22	0	0		18	2557.903706	0.852634569
23	0	0		18	2539.903706	0.846634569
24	0	0		18	2521.903706	0.840634569
25	0	0		18	2503.903706	0.834634569
26	0	0		18	2485.903706	0.828634569
27	0	0		18	2467.903706	0.822634569
28	0	0		18	2449.903706	0.816634569
29	0	0		18	2431.903706	0.810634569
30	0	0		18	2413.903706	0.804634569
31	0	0		18	2395.903706	0.798634569
November				558		
1	0	0		18	2377.903706	0.792634569
2	0	0		18	2359.903706	0.786634569
3	0	0		18	2341.903706	0.780634569
4	0	0		18	2323.903706	0.774634569
5	0	0		18	2305.903706	0.768634569
6	0	0		18	2287.903706	0.762634569
7	0	0		18	2269.903706	0.756634569
8	0	0		18	2251.903706	0.750634569
9	0	0		18	2233.903706	0.744634569
10	0	0		18	2215.903706	0.738634569

11	0	0		18	2197.903706	0.732634569
12	0	0		18	2179.903706	0.726634569
13	0	0		18	2161.903706	0.720634569
14	0	0		18	2143.903706	0.714634569
15	0	0		18	2125.903706	0.708634569
16	0	0		18	2107.903706	0.702634569
17	0	0		18	2089.903706	0.696634569
18	0	0		18	2071.903706	0.690634569
19	0	0		18	2053.903706	0.684634569
20	0	0		18	2035.903706	0.678634569
21	0	0		18	2017.903706	0.672634569
22	0	0		18	1999.903706	0.666634569
23	0	0		18	1981.903706	0.660634569
24	0	0		18	1963.903706	0.654634569
25	0	0		18	1945.903706	0.648634569
26	0	0		18	1927.903706	0.642634569
27	0	0		18	1909.903706	0.636634569
28	0	0		18	1891.903706	0.630634569
29	0	0		18	1873.903706	0.624634569
30	0	0		18	1855.903706	0.618634569
Desember				540		
1	0	0		18	1837.903706	0.612634569
2	0	0		18	1819.903706	0.606634569
3	0	0		18	1801.903706	0.600634569
4	0	0		18	1783.903706	0.594634569
5	0	0		18	1765.903706	0.588634569
6	0	0		18	1747.903706	0.582634569
7	0	0		18	1729.903706	0.576634569
8	0	0		18	1711.903706	0.570634569
9	0	0		18	1693.903706	0.564634569
10	0	0		18	1675.903706	0.558634569
11	0	0		18	1657.903706	0.552634569
12	0	0		18	1639.903706	0.546634569
13	0	0		18	1621.903706	0.540634569
14	0	0		18	1603.903706	0.534634569
15	0	0		18	1585.903706	0.528634569
16	0	0		18	1567.903706	0.522634569
17	0	0		18	1549.903706	0.516634569
18	0	0		18	1531.903706	0.510634569
19	0	0		18	1513.903706	0.504634569
20	0	0		18	1495.903706	0.498634569
21	0	0		18	1477.903706	0.492634569
22	0	0		18	1459.903706	0.486634569
23	0	0		18	1441.903706	0.480634569
24	0	0		18	1423.903706	0.474634569
25	0	0		18	1405.903706	0.468634569
26	0	0		18	1387.903706	0.462634569
27	0	0		18	1369.903706	0.456634569
28	0	0		18	1351.903706	0.450634569
29	0	0		18	1333.903706	0.444634569
30	0	0		18	1315.903706	0.438634569
31	0	0		18	1297.903706	0.432634569

FTK ITS						
TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	38	529.295673	1500	0	6023.924669	2.00797489
2	30	417.865005		0	6441.789674	2.147263225
3	12	167.146002		0	6608.935676	2.202978559
4	65	905.374178	1500	0	6014.309854	2.004769951
5	0	0		0	6014.309854	2.004769951
6	0	0		0	6014.309854	2.004769951
7	22	306.434337		0	6320.744191	2.10691473
8	0	0		0	6320.744191	2.10691473
9	0	0		0	6320.744191	2.10691473
10	0	0		0	6320.744191	2.10691473
11	0	0		18	6302.744191	2.10091473
12	0	0		18	6284.744191	2.09491473
13	0	0		18	6266.744191	2.08891473
14	0	0		18	6248.744191	2.08291473
15	42	585.011007		0	6833.755198	2.277918399
16	0	0		0	6833.755198	2.277918399
17	0	0		0	6833.755198	2.277918399
18	26	362.149671		0	7195.904869	2.398634956
19	47	654.655175	1500	0	6350.560043	2.116853348
20	0	0		0	6350.560043	2.116853348
21	22	306.434337		0	6656.99438	2.218998127
22	30	417.865005		0	7074.859385	2.358286462
23	14	195.003669		0	7269.863054	2.423287685
24	0	0		0	7269.863054	2.423287685
25	11	153.217169		0	7423.080223	2.474360074
26	0	0		0	7423.080223	2.474360074
27	62	863.587677	1500	0	6786.6679	2.262222633
28	66	919.303011	1500	0	6205.970911	2.06865697
29	58	807.872343	1500	0	5513.843254	1.837947751
30	0	0		0	5513.843254	1.837947751
31	0	0		0	5513.843254	1.837947751
Februari						
1	0	0		0	5513.843254	1.837947751
2	8	111.430668		0	5625.273922	1.875091307
3	15	208.932503		0	5834.206424	1.944735475
4	25	348.220838	1500	0	4682.427262	1.560809087
5	0	0		0	4682.427262	1.560809087
6	0	0		0	4682.427262	1.560809087
7	0	0		0	4682.427262	1.560809087
8	0	0		18	4664.427262	1.554809087
9	0	0		18	4646.427262	1.548809087
10	0	0		18	4628.427262	1.542809087
11	7	97.5018345		0	4725.929096	1.575309699
12	0	0		0	4725.929096	1.575309699
13	0	0		0	4725.929096	1.575309699
14	20	278.57667		0	5004.505766	1.668168589
15	19	264.647837		0	5269.153603	1.756384534
16	0	0		0	5269.153603	1.756384534
17	45	626.797508	1500	0	4395.95111	1.465317037
18	0	0		0	4395.95111	1.465317037
19	0	0		0	4395.95111	1.465317037
20	0	0		0	4395.95111	1.465317037
21	0	0		18	4377.95111	1.459317037
22	0	0		18	4359.95111	1.453317037
23	0	0		18	4341.95111	1.447317037
24	0	0		18	4323.95111	1.441317037
25	25	348.220838		0	4672.171948	1.557390649
26	10	139.288335		0	4811.460283	1.603820094
27	50	696.441675		0	5507.901958	1.835967319
28	38	529.295673		0	6037.197631	2.01239921
Maret						
1	0	0		0	6037.197631	2.01239921
2	0	0		0	6037.197631	2.01239921
3	8	111.430668	1500	0	4648.628299	1.549542766
4	12	167.146002		0	4815.774301	1.6052581
5	0	0		0	4815.774301	1.6052581
6	10	139.288335	1500	0	3455.062636	1.151687545
7	0	0		0	3455.062636	1.151687545
8	0	0		0	3455.062636	1.151687545
9	10	139.288335		0	3594.350971	1.19811699

10	18	250.719003		0	3845.069974	1.281689991
11	22	306.434337		0	4151.504311	1.38383477
12	35	487.509173		0	4639.013483	1.546337828
13	20	278.57667		0	4917.590153	1.639196718
14	25	348.220838		0	5265.810991	1.75527033
15	40	557.15334	1500	0	4322.964331	1.44098811
16	25	348.220838		0	4671.185168	1.557061723
17	21	292.505504		0	4963.690672	1.654563557
18	20	278.57667		0	5242.267342	1.747422447
19	35	487.509173	1500	0	4229.776514	1.409925505
20	0	0		0	4229.776514	1.409925505
21	0	0		0	4229.776514	1.409925505
22	0	0		0	4229.776514	1.409925505
23	0	0		18	4211.776514	1.403925505
24	0	0		18	4193.776514	1.397925505
25	0	0		18	4175.776514	1.391925505
26	0	0		18	4157.776514	1.385925505
27	0	0		18	4139.776514	1.379925505
28	53	738.228176		0	4878.00469	1.626001563
29	25	348.220838		0	5226.225527	1.742075176
30	0	0		0	5226.225527	1.742075176
31	0	0		0	5226.225527	1.742075176
April						
1	30	417.865005		0	5644.090532	1.881363511
2	10	139.288335		0	5783.378867	1.927792956
3	0	0		0	5783.378867	1.927792956
4	12	167.146002		0	5950.524869	1.98350829
5	0	0		0	5950.524869	1.98350829
6	30	417.865005	1500	0	4868.389874	1.622796625
7	0	0		0	4868.389874	1.622796625
8	20	278.57667		0	5146.966544	1.715655515
9	22	306.434337		0	5453.400881	1.817800294
10	0	0		0	5453.400881	1.817800294
11	0	0		0	5453.400881	1.817800294
12	0	0		18	5435.400881	1.811800294
13	12	167.146002		0	5602.546883	1.867515628
14	6	83.573001		18	5668.119884	1.889373295
15	20	278.57667		0	5946.696554	1.982232185
16	25	348.220838	1500	0	4794.917392	1.598305797
17	0	0		0	4794.917392	1.598305797
18	0	0		0	4794.917392	1.598305797
19	8	111.430668		0	4906.34806	1.635449353
20	7	97.5018345		0	5003.849894	1.667949965
21	5	69.6441675	1500	0	3573.494062	1.191164687
22	0	0		0	3573.494062	1.191164687
23	80	1114.30668		0	4687.800742	1.562600247
24	0	0		0	4687.800742	1.562600247
25	0	0		0	4687.800742	1.562600247
26	0	0		0	4687.800742	1.562600247
27	0	0		18	4669.800742	1.556600247
28	5	69.6441675		0	4739.444909	1.57981497
29	0	0		0	4739.444909	1.57981497
30	0	0		0	4739.444909	1.57981497

Mei						
1	10	139.288335		0	4878.733244	1.626244415
2	0	0		0	4878.733244	1.626244415
3	0	0		0	4878.733244	1.626244415
4	0	0		0	4878.733244	1.626244415
5	0	0		18	4860.733244	1.620244415
6	0	0		18	4842.733244	1.614244415
7	0	0		18	4824.733244	1.608244415
8	0	0		18	4806.733244	1.602244415
9	20	278.57667		0	5085.309914	1.695103305
10	12	167.146002		0	5252.455916	1.750818639
11	0	0		0	5252.455916	1.750818639
12	18	250.719003	1500	0	4003.174919	1.33439164
13	0	0		0	4003.174919	1.33439164
14	47	654.655175		0	4657.830094	1.552610031
15	0	0		0	4657.830094	1.552610031
16	0	0		0	4657.830094	1.552610031
17	0	0		0	4657.830094	1.552610031
18	0	0		18	4639.830094	1.546610031
19	0	0		18	4621.830094	1.540610031
20	19	264.647837		0	4886.47793	1.628825977
21	8	111.430668		0	4997.908598	1.665969533
22	10	139.288335		0	5137.196933	1.712398978
23	12	167.146002		0	5304.342935	1.768114312
24	70	975.018345	1500	0	4779.36128	1.593120427
25	0	0		0	4779.36128	1.593120427
26	0	0		0	4779.36128	1.593120427
27	42	585.011007		0	5364.372287	1.788124096
28	25	348.220838		0	5712.593125	1.904197708
29	0	0		0	5712.593125	1.904197708
30	0	0		0	5712.593125	1.904197708
31	0	0		0	5712.593125	1.904197708
Juni						
1	0	0		18	5694.593125	1.898197708
2	0	0		18	5676.593125	1.892197708
3	15	208.932503		0	5885.525627	1.961841876
4	0	0		0	5885.525627	1.961841876
5	0	0		0	5885.525627	1.961841876
6	25	348.220838	1500	0	4733.746465	1.577915488
7	17	236.79017	1500	0	3470.536634	1.156845545
8	0	0		0	3470.536634	1.156845545
9	5	69.6441675		0	3540.180802	1.180060267
10	0	0		0	3540.180802	1.180060267
11	0	0		0	3540.180802	1.180060267
12	0	0		0	3540.180802	1.180060267
13	0	0		18	3522.180802	1.174060267
14	5	69.6441675		0	3591.824969	1.19727499
15	39	543.224507		0	4135.049476	1.378349825
16	0	0		0	4135.049476	1.378349825
17	0	0		0	4135.049476	1.378349825
18	52	724.299342		0	4859.348818	1.619782939
19	0	0		0	4859.348818	1.619782939
20	0	0		0	4859.348818	1.619782939
21	0	0		0	4859.348818	1.619782939
22	0	0		18	4841.348818	1.613782939
23	0	0		18	4823.348818	1.607782939
24	0	0		18	4805.348818	1.601782939
25	0	0		0	4805.348818	1.601782939
26	8	111.430668		0	4916.779486	1.638926495
27	15	208.932503		0	5125.711988	1.708570663
28	41	571.082174	1500	0	4196.794162	1.398931387
29	0	0		0	4196.794162	1.398931387
30	0	0		0	4196.794162	1.398931387
Juli						
1	0	0		0	4196.794162	1.398931387
2	0	0		18	4178.794162	1.392931387
3	65	905.374178		0	5084.168339	1.69472278
4	0	0		0	5084.168339	1.69472278
5	0	0		0	5084.168339	1.69472278
6	0	0		0	5084.168339	1.69472278
7	0	0		18	5066.168339	1.68872278
8	0	0		18	5048.168339	1.68272278
9	0	0		18	5030.168339	1.67672278
10	0	0		18	5012.168339	1.67072278

11	0	0		18	4994.168339	1.66472278
12	0	0		18	4976.168339	1.65872278
13	0	0		18	4958.168339	1.65272278
14	0	0		18	4940.168339	1.64672278
15	0	0		18	4922.168339	1.64072278
16	0	0		18	4904.168339	1.63472278
17	0	0		18	4886.168339	1.62872278
18	0	0		18	4868.168339	1.62272278
19	0	0		18	4850.168339	1.61672278
20	0	0		18	4832.168339	1.61072278
21	0	0		18	4814.168339	1.60472278
22	7	97.5018345		0	4911.670174	1.637223391
23	0	0		0	4911.670174	1.637223391
24	0	0		0	4911.670174	1.637223391
25	0	0		0	4911.670174	1.637223391
26	0	0		18	4893.670174	1.631223391
27	0	0		18	4875.670174	1.625223391
28	0	0		18	4857.670174	1.619223391
29	0	0		18	4839.670174	1.613223391
30	0	0		18	4821.670174	1.607223391
31	0	0		18	4803.670174	1.601223391
Agustus						
1	0	0		18	4785.670174	1.595223391
2	0	0		18	4767.670174	1.589223391
3	0	0		18	4749.670174	1.583223391
4	0	0		18	4731.670174	1.577223391
5	0	0		18	4713.670174	1.571223391
6	0	0		18	4695.670174	1.565223391
7	0	0		18	4677.670174	1.559223391
8	0	0		18	4659.670174	1.553223391
9	0	0		18	4641.670174	1.547223391
10	0	0		18	4623.670174	1.541223391
11	0	0		18	4605.670174	1.535223391
12	0	0		18	4587.670174	1.529223391
13	0	0		18	4569.670174	1.523223391
14	0	0		18	4551.670174	1.517223391
15	0	0		18	4533.670174	1.511223391
16	0	0		18	4515.670174	1.505223391
17	0	0		18	4497.670174	1.499223391
18	0	0		18	4479.670174	1.493223391
19	0	0		18	4461.670174	1.487223391
20	0	0		18	4443.670174	1.481223391
21	0	0		18	4425.670174	1.475223391
22	0	0		18	4407.670174	1.469223391
23	0	0		18	4389.670174	1.463223391
24	0	0		18	4371.670174	1.457223391
25	0	0		18	4353.670174	1.451223391
26	0	0		18	4335.670174	1.445223391
27	0	0		18	4317.670174	1.439223391
28	0	0		18	4299.670174	1.433223391
29	0	0		18	4281.670174	1.427223391
30	0	0		18	4263.670174	1.421223391
31	0	0		18	4245.670174	1.415223391

September						
1	0	0		18	4227.670174	1.409223391
2	0	0		18	4209.670174	1.403223391
3	0	0		18	4191.670174	1.397223391
4	0	0		18	4173.670174	1.391223391
5	0	0		18	4155.670174	1.385223391
6	0	0		18	4137.670174	1.379223391
7	0	0		18	4119.670174	1.373223391
8	0	0		18	4101.670174	1.367223391
9	0	0		18	4083.670174	1.361223391
10	0	0		18	4065.670174	1.355223391
11	0	0		18	4047.670174	1.349223391
12	0	0		18	4029.670174	1.343223391
13	0	0		18	4011.670174	1.337223391
14	0	0		18	3993.670174	1.331223391
15	0	0		18	3975.670174	1.325223391
16	0	0		18	3957.670174	1.319223391
17	0	0		18	3939.670174	1.313223391
18	0	0		18	3921.670174	1.307223391
19	0	0		18	3903.670174	1.301223391
20	0	0		18	3885.670174	1.295223391
21	0	0		18	3867.670174	1.289223391
22	0	0		18	3849.670174	1.283223391
23	0	0		18	3831.670174	1.277223391
24	0	0		18	3813.670174	1.271223391
25	0	0		18	3795.670174	1.265223391
26	0	0		18	3777.670174	1.259223391
27	0	0		18	3759.670174	1.253223391
28	0	0		18	3741.670174	1.247223391
29	0	0		18	3723.670174	1.241223391
30	0	0		18	3705.670174	1.235223391
Oktober						
1	0	0		18	3687.670174	1.229223391
2	0	0		18	3669.670174	1.223223391
3	0	0		18	3651.670174	1.217223391
4	0	0		18	3633.670174	1.211223391
5	0	0		18	3615.670174	1.205223391
6	0	0		18	3597.670174	1.199223391
7	0	0		18	3579.670174	1.193223391
8	0	0		18	3561.670174	1.187223391
9	0	0		18	3543.670174	1.181223391
10	0	0		18	3525.670174	1.175223391
11	0	0		18	3507.670174	1.169223391
12	0	0		18	3489.670174	1.163223391
13	0	0		18	3471.670174	1.157223391
14	0	0		18	3453.670174	1.151223391
15	0	0		18	3435.670174	1.145223391
16	0	0		18	3417.670174	1.139223391
17	0	0		18	3399.670174	1.133223391
18	0	0		18	3381.670174	1.127223391
19	0	0		18	3363.670174	1.121223391
20	0	0		18	3345.670174	1.115223391
21	0	0		18	3327.670174	1.109223391
22	0	0		18	3309.670174	1.103223391
23	0	0		18	3291.670174	1.097223391
24	0	0		18	3273.670174	1.091223391
25	0	0		18	3255.670174	1.085223391
26	0	0		18	3237.670174	1.079223391
27	0	0		18	3219.670174	1.073223391
28	0	0		18	3201.670174	1.067223391
29	0	0		18	3183.670174	1.061223391
30	0	0		18	3165.670174	1.055223391
31	0	0		18	3147.670174	1.049223391
November						
1	0	0		18	3129.670174	1.043223391
2	0	0		18	3111.670174	1.037223391
3	0	0		18	3093.670174	1.031223391
4	0	0		18	3075.670174	1.025223391
5	0	0		18	3057.670174	1.019223391
6	0	0		18	3039.670174	1.013223391
7	0	0		18	3021.670174	1.007223391
8	0	0		18	3003.670174	1.001223391
9	0	0		18	2985.670174	0.995223391
10	0	0		18	2967.670174	0.989223391



11	0	0		18	2949.670174	0.983223391
12	0	0		18	2931.670174	0.977223391
13	0	0		18	2913.670174	0.971223391
14	0	0		18	2895.670174	0.965223391
15	5	69.6441675		0	2965.314341	0.988438114
16	10	139.288335		0	3104.602676	1.034867559
17	5	69.6441675		0	3174.246844	1.058082281
18	0	0		0	3174.246844	1.058082281
19	0	0		0	3174.246844	1.058082281
20	15	208.932503		0	3383.179346	1.127726449
21	0	0		0	3383.179346	1.127726449
22	10	139.288335		0	3522.467681	1.174155894
23	0	0		0	3522.467681	1.174155894
24	0	0		0	3522.467681	1.174155894
25	7	97.5018345		0	3619.969516	1.206656505
26	30	417.865005		0	4037.834521	1.34594484
27	0	0		0	4037.834521	1.34594484
28	15	208.932503		0	4246.767023	1.415589008
29	20	278.57667		0	4525.343693	1.508447898
30	0	0		0	4525.343693	1.508447898
Desember						
1	0	0		0	4525.343693	1.508447898
2	15	208.932503		0	4734.276196	1.578092065
3	0	0		0	4734.276196	1.578092065
4	0	0		0	4734.276196	1.578092065
5	31	431.793839		0	5166.070034	1.722023345
6	10	139.288335		0	5305.358369	1.76845279
7	0	0		0	5305.358369	1.76845279
8	25	348.220838		0	5653.579207	1.884526402
9	6	83.573001		0	5737.152208	1.912384069
10	5	69.6441675		0	5806.796375	1.935598792
11	10	139.288335		0	5946.08471	1.982028237
12	15	208.932503	1500	0	4655.017213	1.551672404
13	20	278.57667	1500	0	3433.593883	1.144531294
14	40	557.15334		0	3990.747223	1.330249074
15	20	278.57667		0	4269.323893	1.423107964
16	62	863.587677	1500	0	3632.91157	1.210970523
17	30	417.865005		0	4050.776575	1.350258858
18	0	0		0	4050.776575	1.350258858
19	0	0		0	4050.776575	1.350258858
20	0	0		0	4050.776575	1.350258858
21	0	0		18	4032.776575	1.344258858
22	0	0		18	4014.776575	1.338258858
23	0	0		18	3996.776575	1.332258858
24	0	0		18	3978.776575	1.326258858
25	0	0		18	3960.776575	1.320258858
26	0	0		18	3942.776575	1.314258858
27	0	0		18	3924.776575	1.308258858
28	0	0		18	3906.776575	1.302258858
29	0	0		18	3888.776575	1.296258858
30	0	0		18	3870.776575	1.290258858
31	0	0		18	3852.776575	1.284258858

## TAMAN ALUMNI ITS

TANGGAL	R (mm)	Vol. I (m3)	Vol O	Vol O (m3)	DS (m3)	tinggi air (m)
Januari	R (mm)					
1	9	94.9644225	1000	0	4130.315316	1.376771772
2	0	0		0	5045.984234	1.681994745
3	6	63.309615	1000	0	4109.293849	1.369764616
4	0	0		0	4109.293849	1.369764616
5	10	105.516025		0	4214.809874	1.404936625
6	0	0		0	4214.809874	1.404936625
7	0	0		0	4214.809874	1.404936625
8	0	0		0	4214.809874	1.404936625
9	120	1266.1923	1000	0	4481.002174	1.493667391
10	9	94.9644225		0	4575.966596	1.525322199
11	0	0		0	4575.966596	1.525322199
12	12	126.61923		0	4702.585826	1.567528609
13	60	633.09615	1000	0	4335.681976	1.445227325
14	0	0		18	4317.681976	1.439227325
15	0	0		18	4299.681976	1.433227325
16	0	0		18	4281.681976	1.427227325
17	21	221.5836525		0	4503.265629	1.501088543
18	0	0		0	4503.265629	1.501088543
19	0	0		0	4503.265629	1.501088543
20	0	0		0	4503.265629	1.501088543
21	10	105.516025		0	4608.781654	1.536260551
22	0	0		0	4608.781654	1.536260551
23	0	0		0	4608.781654	1.536260551
24	0	0		0	4608.781654	1.536260551
25	0	0		18	4590.781654	1.530260551
26	0	0		18	4572.781654	1.524260551
27	0	0		18	4554.781654	1.518260551
28	0	0		18	4536.781654	1.512260551
29	0	0		18	4518.781654	1.506260551
30	0	0		18	4500.781654	1.500260551
31	81	854.6798025	1000	0	4355.461456	1.451820485
Februari				162		
1	0	0		0	4355.461456	1.451820485
2	24	253.23846		0	4608.699916	1.536233305
3	26	274.341665		0	4883.041581	1.627680527
4	0	0		0	4883.041581	1.627680527
5	26	274.341665	1000	0	4157.383246	1.385794415
6	0	0		0	4157.383246	1.385794415
7	0	0		0	4157.383246	1.385794415
8	0	0		0	4157.383246	1.385794415
9	15	158.2740375	1000	0	3315.657284	1.105219095
10	0	0		0	3315.657284	1.105219095
11	0	0		0	3315.657284	1.105219095
12	0	0		0	3315.657284	1.105219095
13	0	0		18	3297.657284	1.099219095
14	0	0		18	3279.657284	1.093219095
15	35	369.3060875		0	3648.963371	1.216321124
16	50	527.580125		0	4176.543496	1.392181165
17	0	0		0	4176.543496	1.392181165
18	0	0		0	4176.543496	1.392181165
19	0	0		0	4176.543496	1.392181165
20	18	189.928845		0	4366.472341	1.45549078
21	15	158.2740375		0	4524.746379	1.508248793
22	30	316.548075	1000	0	3841.294454	1.280431485
23	15	158.2740375		0	3999.568491	1.333189497
24	12	126.61923		0	4126.187721	1.375395907
25	20	211.03205		0	4337.219771	1.445739924
26	21	221.5836525		0	4558.803424	1.519601141
27	50	527.580125	1000	0	4086.383549	1.36212785
28	16	168.82564		0	4255.209189	1.418403063
Maret				36		
1	16	168.82564		0	4424.034829	1.474678276
2	0	0		0	4424.034829	1.474678276
3	19	200.4804475		0	4624.515276	1.541505092
4	5	52.7580125		0	4677.273289	1.559091096
5	20	211.03205		0	4888.305339	1.629435113
6	22	232.135255	1000	0	4120.440594	1.373480198
7	0	0		0	4120.440594	1.373480198
8	0	0		18	4102.440594	1.367480198
9	0	0		18	4084.440594	1.361480198
10	48	506.47692	1000	0	3590.917514	1.196972505

11	0	0		0	3590.917514	1.196972505
12	84	886.33461		0	4477.252124	1.492417375
13	0	0		0	4477.252124	1.492417375
14	0	0		0	4477.252124	1.492417375
15	0	0		0	4477.252124	1.492417375
16	0	0		18	4459.252124	1.486417375
17	73	770.2669825	1000	0	4229.519106	1.409839702
18	0	0		0	4229.519106	1.409839702
19	0	0		0	4229.519106	1.409839702
20	8	84.41282		0	4313.931926	1.437977309
21	0	0		18	4295.931926	1.431977309
22	0	0		18	4277.931926	1.425977309
23	0	0		18	4259.931926	1.419977309
24	0	0		18	4241.931926	1.413977309
25	0	0		18	4223.931926	1.407977309
26	0	0		18	4205.931926	1.401977309
27	0	0		18	4187.931926	1.395977309
28	0	0		18	4169.931926	1.389977309
29	0	0		18	4151.931926	1.383977309
30	20	211.03205		0	4362.963976	1.454321325
31	5	52.7580125		0	4415.721989	1.47190733
April				216		
1	10	105.516025		0	4521.238014	1.507079338
2	0	0		0	4521.238014	1.507079338
3	0	0		0	4521.238014	1.507079338
4	0	0		0	4521.238014	1.507079338
5	0	0		18	4503.238014	1.501079338
6	5	52.7580125		0	4555.996026	1.518665342
7	0	0		0	4555.996026	1.518665342
8	0	0		0	4555.996026	1.518665342
9	0	0		0	4555.996026	1.518665342
10	0	0		18	4537.996026	1.512665342
11	0	0		18	4519.996026	1.506665342
12	0	0		18	4501.996026	1.500665342
13	0	0		18	4483.996026	1.494665342
14	0	0		18	4465.996026	1.488665342
15	0	0		18	4447.996026	1.482665342
16	0	0		18	4429.996026	1.476665342
17	0	0		18	4411.996026	1.470665342
18	0	0		18	4393.996026	1.464665342
19	0	0		18	4375.996026	1.458665342
20	0	0		18	4357.996026	1.452665342
21	10	105.516025		0	4463.512051	1.48783735
22	15	158.2740375		0	4621.786089	1.540595363
23	0	0		0	4621.786089	1.540595363
24	0	0		0	4621.786089	1.540595363
25	0	0		0	4621.786089	1.540595363
26	0	0		18	4603.786089	1.534595363
27	0	0		18	4585.786089	1.528595363
28	10	105.516025		0	4691.302114	1.563767371
29	0	0		0	4691.302114	1.563767371
30	0	0		0	4691.302114	1.563767371

Mei				252		
1	0	0		0	4691.302114	1.563767371
2	0	0		18	4673.302114	1.557767371
3	0	0		18	4655.302114	1.551767371
4	0	0		18	4637.302114	1.545767371
5	0	0		18	4619.302114	1.539767371
6	0	0		18	4601.302114	1.533767371
7	0	0		18	4583.302114	1.527767371
8	0	0		18	4565.302114	1.521767371
9	0	0		18	4547.302114	1.515767371
10	0	0		18	4529.302114	1.509767371
11	25	263.7900625		0	4793.092176	1.597697392
12	0	0		0	4793.092176	1.597697392
13	23	242.6868575	1000	0	4035.779034	1.345259678
14	0	0		0	4035.779034	1.345259678
15	0	0		0	4035.779034	1.345259678
16	15	158.2740375		0	4194.053071	1.39801769
17	0	0		0	4194.053071	1.39801769
18	21	221.5836525		0	4415.636724	1.471878908
19	0	0		0	4415.636724	1.471878908
20	0	0		0	4415.636724	1.471878908
21	0	0		0	4415.636724	1.471878908
22	0	0		18	4397.636724	1.465878908
23	23	242.6868575		0	4640.323581	1.546774527
24	0	0		0	4640.323581	1.546774527
25	0	0		0	4640.323581	1.546774527
26	0	0		0	4640.323581	1.546774527
27	0	0		18	4622.323581	1.540774527
28	0	0		18	4604.323581	1.534774527
29	0	0		18	4586.323581	1.528774527
30	0	0		18	4568.323581	1.522774527
31	0	0		18	4550.323581	1.516774527
Juni				270		
1	0	0		18	4532.323581	1.510774527
2	0	0		18	4514.323581	1.504774527
3	0	0		18	4496.323581	1.498774527
4	0	0		18	4478.323581	1.492774527
5	0	0		18	4460.323581	1.486774527
6	0	0		18	4442.323581	1.480774527
7	0	0		18	4424.323581	1.474774527
8	0	0		18	4406.323581	1.468774527
9	0	0		18	4388.323581	1.462774527
10	50	527.580125		0	4915.903706	1.638634569
11	0	0		0	4915.903706	1.638634569
12	0	0		0	4915.903706	1.638634569
13	0	0		0	4915.903706	1.638634569
14	0	0		18	4897.903706	1.632634569
15	0	0		18	4879.903706	1.626634569
16	0	0		18	4861.903706	1.620634569
17	0	0		18	4843.903706	1.614634569
18	0	0		18	4825.903706	1.608634569
19	0	0		18	4807.903706	1.602634569
20	0	0		18	4789.903706	1.596634569
21	0	0		18	4771.903706	1.590634569
22	0	0		18	4753.903706	1.584634569
23	0	0		18	4735.903706	1.578634569
24	0	0		18	4717.903706	1.572634569
25	0	0		18	4699.903706	1.566634569
26	0	0		18	4681.903706	1.560634569
27	0	0		18	4663.903706	1.554634569
28	0	0		18	4645.903706	1.548634569
29	0	0		18	4627.903706	1.542634569
30	0	0		18	4609.903706	1.536634569
Juli				468		
1	0	0		18	4591.903706	1.530634569
2	0	0		18	4573.903706	1.524634569
3	0	0		18	4555.903706	1.518634569
4	0	0		18	4537.903706	1.512634569
5	0	0		18	4519.903706	1.506634569
6	0	0		18	4501.903706	1.500634569
7	0	0		18	4483.903706	1.494634569
8	0	0		18	4465.903706	1.488634569
9	0	0		18	4447.903706	1.482634569
10	0	0		18	4429.903706	1.476634569

11	0	0		18	4411.903706	1.470634569
12	0	0		18	4393.903706	1.464634569
13	0	0		18	4375.903706	1.458634569
14	0	0		18	4357.903706	1.452634569
15	0	0		18	4339.903706	1.446634569
16	0	0		18	4321.903706	1.440634569
17	0	0		18	4303.903706	1.434634569
18	0	0		18	4285.903706	1.428634569
19	0	0		18	4267.903706	1.422634569
20	0	0		18	4249.903706	1.416634569
21	0	0		18	4231.903706	1.410634569
22	0	0		18	4213.903706	1.404634569
23	0	0		18	4195.903706	1.398634569
24	0	0		18	4177.903706	1.392634569
25	0	0		18	4159.903706	1.386634569
26	0	0		18	4141.903706	1.380634569
27	0	0		18	4123.903706	1.374634569
28	0	0		18	4105.903706	1.368634569
29	0	0		18	4087.903706	1.362634569
30	0	0		18	4069.903706	1.356634569
31	0	0		18	4051.903706	1.350634569
Agustus				558		
1	0	0		18	4033.903706	1.344634569
2	0	0		18	4015.903706	1.338634569
3	0	0		18	3997.903706	1.332634569
4	0	0		18	3979.903706	1.326634569
5	0	0		18	3961.903706	1.320634569
6	0	0		18	3943.903706	1.314634569
7	0	0		18	3925.903706	1.308634569
8	0	0		18	3907.903706	1.302634569
9	0	0		18	3889.903706	1.296634569
10	0	0		18	3871.903706	1.290634569
11	0	0		18	3853.903706	1.284634569
12	0	0		18	3835.903706	1.278634569
13	0	0		18	3817.903706	1.272634569
14	0	0		18	3799.903706	1.266634569
15	0	0		18	3781.903706	1.260634569
16	0	0		18	3763.903706	1.254634569
17	0	0		18	3745.903706	1.248634569
18	0	0		18	3727.903706	1.242634569
19	0	0		18	3709.903706	1.236634569
20	0	0		18	3691.903706	1.230634569
21	0	0		18	3673.903706	1.224634569
22	0	0		18	3655.903706	1.218634569
23	0	0		18	3637.903706	1.212634569
24	0	0		18	3619.903706	1.206634569
25	0	0		18	3601.903706	1.200634569
26	0	0		18	3583.903706	1.194634569
27	0	0		18	3565.903706	1.188634569
28	0	0		18	3547.903706	1.182634569
29	0	0		18	3529.903706	1.176634569
30	0	0		18	3511.903706	1.170634569
31	0	0		18	3493.903706	1.164634569

September				558		
1	0	0		18	3475.903706	1.158634569
2	0	0		18	3457.903706	1.152634569
3	0	0		18	3439.903706	1.146634569
4	0	0		18	3421.903706	1.140634569
5	0	0		18	3403.903706	1.134634569
6	0	0		18	3385.903706	1.128634569
7	0	0		18	3367.903706	1.122634569
8	0	0		18	3349.903706	1.116634569
9	0	0		18	3331.903706	1.110634569
10	0	0		18	3313.903706	1.104634569
11	0	0		18	3295.903706	1.098634569
12	0	0		18	3277.903706	1.092634569
13	0	0		18	3259.903706	1.086634569
14	0	0		18	3241.903706	1.080634569
15	0	0		18	3223.903706	1.074634569
16	0	0		18	3205.903706	1.068634569
17	0	0		18	3187.903706	1.062634569
18	0	0		18	3169.903706	1.056634569
19	0	0		18	3151.903706	1.050634569
20	0	0		18	3133.903706	1.044634569
21	0	0		18	3115.903706	1.038634569
22	0	0		18	3097.903706	1.032634569
23	0	0		18	3079.903706	1.026634569
24	0	0		18	3061.903706	1.020634569
25	0	0		18	3043.903706	1.014634569
26	0	0		18	3025.903706	1.008634569
27	0	0		18	3007.903706	1.002634569
28	0	0		18	2989.903706	0.996634569
29	0	0		18	2971.903706	0.990634569
30	0	0		18	2953.903706	0.984634569
Oktober				540		
1	0	0		18	2935.903706	0.978634569
2	0	0		18	2917.903706	0.972634569
3	0	0		18	2899.903706	0.966634569
4	0	0		18	2881.903706	0.960634569
5	0	0		18	2863.903706	0.954634569
6	0	0		18	2845.903706	0.948634569
7	0	0		18	2827.903706	0.942634569
8	0	0		18	2809.903706	0.936634569
9	0	0		18	2791.903706	0.930634569
10	0	0		18	2773.903706	0.924634569
11	0	0		18	2755.903706	0.918634569
12	0	0		18	2737.903706	0.912634569
13	0	0		18	2719.903706	0.906634569
14	0	0		18	2701.903706	0.900634569
15	0	0		18	2683.903706	0.894634569
16	0	0		18	2665.903706	0.888634569
17	0	0		18	2647.903706	0.882634569
18	0	0		18	2629.903706	0.876634569
19	0	0		18	2611.903706	0.870634569
20	0	0		18	2593.903706	0.864634569
21	0	0		18	2575.903706	0.858634569
22	0	0		18	2557.903706	0.852634569
23	0	0		18	2539.903706	0.846634569
24	0	0		18	2521.903706	0.840634569
25	0	0		18	2503.903706	0.834634569
26	0	0		18	2485.903706	0.828634569
27	0	0		18	2467.903706	0.822634569
28	0	0		18	2449.903706	0.816634569
29	0	0		18	2431.903706	0.810634569
30	0	0		18	2413.903706	0.804634569
31	0	0		18	2395.903706	0.798634569
November				558		
1	0	0		18	2377.903706	0.792634569
2	0	0		18	2359.903706	0.786634569
3	0	0		18	2341.903706	0.780634569
4	0	0		18	2323.903706	0.774634569
5	0	0		18	2305.903706	0.768634569
6	0	0		18	2287.903706	0.762634569
7	0	0		18	2269.903706	0.756634569
8	0	0		18	2251.903706	0.750634569
9	0	0		18	2233.903706	0.744634569
10	0	0		18	2215.903706	0.738634569

11	0	0		18	2197.903706	0.732634569
12	0	0		18	2179.903706	0.726634569
13	0	0		18	2161.903706	0.720634569
14	0	0		18	2143.903706	0.714634569
15	0	0		18	2125.903706	0.708634569
16	0	0		18	2107.903706	0.702634569
17	0	0		18	2089.903706	0.696634569
18	0	0		18	2071.903706	0.690634569
19	0	0		18	2053.903706	0.684634569
20	0	0		18	2035.903706	0.678634569
21	0	0		18	2017.903706	0.672634569
22	0	0		18	1999.903706	0.666634569
23	0	0		18	1981.903706	0.660634569
24	0	0		18	1963.903706	0.654634569
25	0	0		18	1945.903706	0.648634569
26	0	0		18	1927.903706	0.642634569
27	0	0		18	1909.903706	0.636634569
28	0	0		18	1891.903706	0.630634569
29	0	0		18	1873.903706	0.624634569
30	0	0		18	1855.903706	0.618634569
Desember				540		
1	0	0		18	1837.903706	0.612634569
2	0	0		18	1819.903706	0.606634569
3	0	0		18	1801.903706	0.600634569
4	0	0		18	1783.903706	0.594634569
5	0	0		18	1765.903706	0.588634569
6	0	0		18	1747.903706	0.582634569
7	0	0		18	1729.903706	0.576634569
8	0	0		18	1711.903706	0.570634569
9	0	0		18	1693.903706	0.564634569
10	0	0		18	1675.903706	0.558634569
11	0	0		18	1657.903706	0.552634569
12	0	0		18	1639.903706	0.546634569
13	0	0		18	1621.903706	0.540634569
14	0	0		18	1603.903706	0.534634569
15	0	0		18	1585.903706	0.528634569
16	0	0		18	1567.903706	0.522634569
17	0	0		18	1549.903706	0.516634569
18	0	0		18	1531.903706	0.510634569
19	0	0		18	1513.903706	0.504634569
20	0	0		18	1495.903706	0.498634569
21	0	0		18	1477.903706	0.492634569
22	0	0		18	1459.903706	0.486634569
23	0	0		18	1441.903706	0.480634569
24	0	0		18	1423.903706	0.474634569
25	0	0		18	1405.903706	0.468634569
26	0	0		18	1387.903706	0.462634569
27	0	0		18	1369.903706	0.456634569
28	0	0		18	1351.903706	0.450634569
29	0	0		18	1333.903706	0.444634569
30	0	0		18	1315.903706	0.438634569
31	0	0		18	1297.903706	0.432634569

FTK ITS						
TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	38	529.295673	1500	0	6023.924669	2.00797489
2	30	417.865005		0	6441.789674	2.147263225
3	12	167.146002		0	6608.935676	2.202978559
4	65	905.374178	1500	0	6014.309854	2.004769951
5	0	0		0	6014.309854	2.004769951
6	0	0		0	6014.309854	2.004769951
7	22	306.434337		0	6320.744191	2.10691473
8	0	0		0	6320.744191	2.10691473
9	0	0		0	6320.744191	2.10691473
10	0	0		0	6320.744191	2.10691473
11	0	0		18	6302.744191	2.10091473
12	0	0		18	6284.744191	2.09491473
13	0	0		18	6266.744191	2.08891473
14	0	0		18	6248.744191	2.08291473
15	42	585.011007		0	6833.755198	2.277918399
16	0	0		0	6833.755198	2.277918399
17	0	0		0	6833.755198	2.277918399
18	26	362.149671		0	7195.904869	2.398634956
19	47	654.655175	1500	0	6350.560043	2.116853348
20	0	0		0	6350.560043	2.116853348
21	22	306.434337		0	6656.99438	2.218998127
22	30	417.865005		0	7074.859385	2.358286462
23	14	195.003669		0	7269.863054	2.423287685
24	0	0		0	7269.863054	2.423287685
25	11	153.217169		0	7423.080223	2.474360074
26	0	0		0	7423.080223	2.474360074
27	62	863.587677	1500	0	6786.6679	2.262222633
28	66	919.303011	1500	0	6205.970911	2.06865697
29	58	807.872343	1500	0	5513.843254	1.837947751
30	0	0		0	5513.843254	1.837947751
31	0	0		0	5513.843254	1.837947751
Februari						
1	0	0		0	5513.843254	1.837947751
2	8	111.430668		0	5625.273922	1.875091307
3	15	208.932503		0	5834.206424	1.944735475
4	25	348.220838	1500	0	4682.427262	1.560809087
5	0	0		0	4682.427262	1.560809087
6	0	0		0	4682.427262	1.560809087
7	0	0		0	4682.427262	1.560809087
8	0	0		18	4664.427262	1.554809087
9	0	0		18	4646.427262	1.548809087
10	0	0		18	4628.427262	1.542809087
11	7	97.5018345		0	4725.929096	1.575309699
12	0	0		0	4725.929096	1.575309699
13	0	0		0	4725.929096	1.575309699
14	20	278.57667		0	5004.505766	1.668168589
15	19	264.647837		0	5269.153603	1.756384534
16	0	0		0	5269.153603	1.756384534
17	45	626.797508	1500	0	4395.95111	1.465317037
18	0	0		0	4395.95111	1.465317037
19	0	0		0	4395.95111	1.465317037
20	0	0		0	4395.95111	1.465317037
21	0	0		18	4377.95111	1.459317037
22	0	0		18	4359.95111	1.453317037
23	0	0		18	4341.95111	1.447317037
24	0	0		18	4323.95111	1.441317037
25	25	348.220838		0	4672.171948	1.557390649
26	10	139.288335		0	4811.460283	1.603820094
27	50	696.441675		0	5507.901958	1.835967319
28	38	529.295673		0	6037.197631	2.01239921
Maret						
1	0	0		0	6037.197631	2.01239921
2	0	0		0	6037.197631	2.01239921
3	8	111.430668	1500	0	4648.628299	1.549542766
4	12	167.146002		0	4815.774301	1.6052581
5	0	0		0	4815.774301	1.6052581
6	10	139.288335	1500	0	3455.062636	1.151687545
7	0	0		0	3455.062636	1.151687545
8	0	0		0	3455.062636	1.151687545
9	10	139.288335		0	3594.350971	1.19811699



10	18	250.719003		0	3845.069974	1.281689991
11	22	306.434337		0	4151.504311	1.38383477
12	35	487.509173		0	4639.013483	1.546337828
13	20	278.57667		0	4917.590153	1.639196718
14	25	348.220838		0	5265.810991	1.75527033
15	40	557.15334	1500	0	4322.964331	1.44098811
16	25	348.220838		0	4671.185168	1.557061723
17	21	292.505504		0	4963.690672	1.654563557
18	20	278.57667		0	5242.267342	1.747422447
19	35	487.509173	1500	0	4229.776514	1.409925505
20	0	0		0	4229.776514	1.409925505
21	0	0		0	4229.776514	1.409925505
22	0	0		0	4229.776514	1.409925505
23	0	0		18	4211.776514	1.403925505
24	0	0		18	4193.776514	1.397925505
25	0	0		18	4175.776514	1.391925505
26	0	0		18	4157.776514	1.385925505
27	0	0		18	4139.776514	1.379925505
28	53	738.228176		0	4878.00469	1.626001563
29	25	348.220838		0	5226.225527	1.742075176
30	0	0		0	5226.225527	1.742075176
31	0	0		0	5226.225527	1.742075176
April						
1	30	417.865005		0	5644.090532	1.881363511
2	10	139.288335		0	5783.378867	1.927792956
3	0	0		0	5783.378867	1.927792956
4	12	167.146002		0	5950.524869	1.98350829
5	0	0		0	5950.524869	1.98350829
6	30	417.865005	1500	0	4868.389874	1.622796625
7	0	0		0	4868.389874	1.622796625
8	20	278.57667		0	5146.966544	1.715655515
9	22	306.434337		0	5453.400881	1.817800294
10	0	0		0	5453.400881	1.817800294
11	0	0		0	5453.400881	1.817800294
12	0	0		18	5435.400881	1.811800294
13	12	167.146002		0	5602.546883	1.867515628
14	6	83.573001		18	5668.119884	1.889373295
15	20	278.57667		0	5946.696554	1.982232185
16	25	348.220838	1500	0	4794.917392	1.598305797
17	0	0		0	4794.917392	1.598305797
18	0	0		0	4794.917392	1.598305797
19	8	111.430668		0	4906.34806	1.635449353
20	7	97.5018345		0	5003.849894	1.667949965
21	5	69.6441675	1500	0	3573.494062	1.191164687
22	0	0		0	3573.494062	1.191164687
23	80	1114.30668		0	4687.800742	1.562600247
24	0	0		0	4687.800742	1.562600247
25	0	0		0	4687.800742	1.562600247
26	0	0		0	4687.800742	1.562600247
27	0	0		18	4669.800742	1.556600247
28	5	69.6441675		0	4739.444909	1.57981497
29	0	0		0	4739.444909	1.57981497
30	0	0		0	4739.444909	1.57981497

Mei						
1	10	139.288335		0	4878.733244	1.626244415
2	0	0		0	4878.733244	1.626244415
3	0	0		0	4878.733244	1.626244415
4	0	0		0	4878.733244	1.626244415
5	0	0		18	4860.733244	1.620244415
6	0	0		18	4842.733244	1.614244415
7	0	0		18	4824.733244	1.608244415
8	0	0		18	4806.733244	1.602244415
9	20	278.57667		0	5085.309914	1.695103305
10	12	167.146002		0	5252.455916	1.750818639
11	0	0		0	5252.455916	1.750818639
12	18	250.719003	1500	0	4003.174919	1.33439164
13	0	0		0	4003.174919	1.33439164
14	47	654.655175		0	4657.830094	1.552610031
15	0	0		0	4657.830094	1.552610031
16	0	0		0	4657.830094	1.552610031
17	0	0		0	4657.830094	1.552610031
18	0	0		18	4639.830094	1.546610031
19	0	0		18	4621.830094	1.540610031
20	19	264.647837		0	4886.47793	1.628825977
21	8	111.430668		0	4997.908598	1.665969533
22	10	139.288335		0	5137.196933	1.712398978
23	12	167.146002		0	5304.342935	1.768114312
24	70	975.018345	1500	0	4779.36128	1.593120427
25	0	0		0	4779.36128	1.593120427
26	0	0		0	4779.36128	1.593120427
27	42	585.011007		0	5364.372287	1.788124096
28	25	348.220838		0	5712.593125	1.904197708
29	0	0		0	5712.593125	1.904197708
30	0	0		0	5712.593125	1.904197708
31	0	0		0	5712.593125	1.904197708
Juni						
1	0	0		18	5694.593125	1.898197708
2	0	0		18	5676.593125	1.892197708
3	15	208.932503		0	5885.525627	1.961841876
4	0	0		0	5885.525627	1.961841876
5	0	0		0	5885.525627	1.961841876
6	25	348.220838	1500	0	4733.746465	1.577915488
7	17	236.79017	1500	0	3470.536634	1.156845545
8	0	0		0	3470.536634	1.156845545
9	5	69.6441675		0	3540.180802	1.180060267
10	0	0		0	3540.180802	1.180060267
11	0	0		0	3540.180802	1.180060267
12	0	0		0	3540.180802	1.180060267
13	0	0		18	3522.180802	1.174060267
14	5	69.6441675		0	3591.824969	1.19727499
15	39	543.224507		0	4135.049476	1.378349825
16	0	0		0	4135.049476	1.378349825
17	0	0		0	4135.049476	1.378349825
18	52	724.299342		0	4859.348818	1.619782939
19	0	0		0	4859.348818	1.619782939
20	0	0		0	4859.348818	1.619782939
21	0	0		0	4859.348818	1.619782939
22	0	0		18	4841.348818	1.613782939
23	0	0		18	4823.348818	1.607782939
24	0	0		18	4805.348818	1.601782939
25	0	0		0	4805.348818	1.601782939
26	8	111.430668		0	4916.779486	1.638926495
27	15	208.932503		0	5125.711988	1.708570663
28	41	571.082174	1500	0	4196.794162	1.398931387
29	0	0		0	4196.794162	1.398931387
30	0	0		0	4196.794162	1.398931387
Juli						
1	0	0		0	4196.794162	1.398931387
2	0	0		18	4178.794162	1.392931387
3	65	905.374178		0	5084.168339	1.69472278
4	0	0		0	5084.168339	1.69472278
5	0	0		0	5084.168339	1.69472278
6	0	0		0	5084.168339	1.69472278
7	0	0		18	5066.168339	1.68872278
8	0	0		18	5048.168339	1.68272278
9	0	0		18	5030.168339	1.67672278
10	0	0		18	5012.168339	1.67072278

11	0	0		18	4994.168339	1.66472278
12	0	0		18	4976.168339	1.65872278
13	0	0		18	4958.168339	1.65272278
14	0	0		18	4940.168339	1.64672278
15	0	0		18	4922.168339	1.64072278
16	0	0		18	4904.168339	1.63472278
17	0	0		18	4886.168339	1.62872278
18	0	0		18	4868.168339	1.62272278
19	0	0		18	4850.168339	1.61672278
20	0	0		18	4832.168339	1.61072278
21	0	0		18	4814.168339	1.60472278
22	7	97.5018345		0	4911.670174	1.637223391
23	0	0		0	4911.670174	1.637223391
24	0	0		0	4911.670174	1.637223391
25	0	0		0	4911.670174	1.637223391
26	0	0		18	4893.670174	1.631223391
27	0	0		18	4875.670174	1.625223391
28	0	0		18	4857.670174	1.619223391
29	0	0		18	4839.670174	1.613223391
30	0	0		18	4821.670174	1.607223391
31	0	0		18	4803.670174	1.601223391
Agustus						
1	0	0		18	4785.670174	1.595223391
2	0	0		18	4767.670174	1.589223391
3	0	0		18	4749.670174	1.583223391
4	0	0		18	4731.670174	1.577223391
5	0	0		18	4713.670174	1.571223391
6	0	0		18	4695.670174	1.565223391
7	0	0		18	4677.670174	1.559223391
8	0	0		18	4659.670174	1.553223391
9	0	0		18	4641.670174	1.547223391
10	0	0		18	4623.670174	1.541223391
11	0	0		18	4605.670174	1.535223391
12	0	0		18	4587.670174	1.529223391
13	0	0		18	4569.670174	1.523223391
14	0	0		18	4551.670174	1.517223391
15	0	0		18	4533.670174	1.511223391
16	0	0		18	4515.670174	1.505223391
17	0	0		18	4497.670174	1.499223391
18	0	0		18	4479.670174	1.493223391
19	0	0		18	4461.670174	1.487223391
20	0	0		18	4443.670174	1.481223391
21	0	0		18	4425.670174	1.475223391
22	0	0		18	4407.670174	1.469223391
23	0	0		18	4389.670174	1.463223391
24	0	0		18	4371.670174	1.457223391
25	0	0		18	4353.670174	1.451223391
26	0	0		18	4335.670174	1.445223391
27	0	0		18	4317.670174	1.439223391
28	0	0		18	4299.670174	1.433223391
29	0	0		18	4281.670174	1.427223391
30	0	0		18	4263.670174	1.421223391
31	0	0		18	4245.670174	1.415223391

September						
1	0	0		18	4227.670174	1.409223391
2	0	0		18	4209.670174	1.403223391
3	0	0		18	4191.670174	1.397223391
4	0	0		18	4173.670174	1.391223391
5	0	0		18	4155.670174	1.385223391
6	0	0		18	4137.670174	1.379223391
7	0	0		18	4119.670174	1.373223391
8	0	0		18	4101.670174	1.367223391
9	0	0		18	4083.670174	1.361223391
10	0	0		18	4065.670174	1.355223391
11	0	0		18	4047.670174	1.349223391
12	0	0		18	4029.670174	1.343223391
13	0	0		18	4011.670174	1.337223391
14	0	0		18	3993.670174	1.331223391
15	0	0		18	3975.670174	1.325223391
16	0	0		18	3957.670174	1.319223391
17	0	0		18	3939.670174	1.313223391
18	0	0		18	3921.670174	1.307223391
19	0	0		18	3903.670174	1.301223391
20	0	0		18	3885.670174	1.295223391
21	0	0		18	3867.670174	1.289223391
22	0	0		18	3849.670174	1.283223391
23	0	0		18	3831.670174	1.277223391
24	0	0		18	3813.670174	1.271223391
25	0	0		18	3795.670174	1.265223391
26	0	0		18	3777.670174	1.259223391
27	0	0		18	3759.670174	1.253223391
28	0	0		18	3741.670174	1.247223391
29	0	0		18	3723.670174	1.241223391
30	0	0		18	3705.670174	1.235223391
Oktober						
1	0	0		18	3687.670174	1.229223391
2	0	0		18	3669.670174	1.223223391
3	0	0		18	3651.670174	1.217223391
4	0	0		18	3633.670174	1.211223391
5	0	0		18	3615.670174	1.205223391
6	0	0		18	3597.670174	1.199223391
7	0	0		18	3579.670174	1.193223391
8	0	0		18	3561.670174	1.187223391
9	0	0		18	3543.670174	1.181223391
10	0	0		18	3525.670174	1.175223391
11	0	0		18	3507.670174	1.169223391
12	0	0		18	3489.670174	1.163223391
13	0	0		18	3471.670174	1.157223391
14	0	0		18	3453.670174	1.151223391
15	0	0		18	3435.670174	1.145223391
16	0	0		18	3417.670174	1.139223391
17	0	0		18	3399.670174	1.133223391
18	0	0		18	3381.670174	1.127223391
19	0	0		18	3363.670174	1.121223391
20	0	0		18	3345.670174	1.115223391
21	0	0		18	3327.670174	1.109223391
22	0	0		18	3309.670174	1.103223391
23	0	0		18	3291.670174	1.097223391
24	0	0		18	3273.670174	1.091223391
25	0	0		18	3255.670174	1.085223391
26	0	0		18	3237.670174	1.079223391
27	0	0		18	3219.670174	1.073223391
28	0	0		18	3201.670174	1.067223391
29	0	0		18	3183.670174	1.061223391
30	0	0		18	3165.670174	1.055223391
31	0	0		18	3147.670174	1.049223391
November						
1	0	0		18	3129.670174	1.043223391
2	0	0		18	3111.670174	1.037223391
3	0	0		18	3093.670174	1.031223391
4	0	0		18	3075.670174	1.025223391
5	0	0		18	3057.670174	1.019223391
6	0	0		18	3039.670174	1.013223391
7	0	0		18	3021.670174	1.007223391
8	0	0		18	3003.670174	1.001223391
9	0	0		18	2985.670174	0.995223391
10	0	0		18	2967.670174	0.989223391

11	0	0		18	2949.670174	0.983223391
12	0	0		18	2931.670174	0.977223391
13	0	0		18	2913.670174	0.971223391
14	0	0		18	2895.670174	0.965223391
15	5	69.6441675		0	2965.314341	0.988438114
16	10	139.288335		0	3104.602676	1.034867559
17	5	69.6441675		0	3174.246844	1.058082281
18	0	0		0	3174.246844	1.058082281
19	0	0		0	3174.246844	1.058082281
20	15	208.932503		0	3383.179346	1.127726449
21	0	0		0	3383.179346	1.127726449
22	10	139.288335		0	3522.467681	1.174155894
23	0	0		0	3522.467681	1.174155894
24	0	0		0	3522.467681	1.174155894
25	7	97.5018345		0	3619.969516	1.206656505
26	30	417.865005		0	4037.834521	1.34594484
27	0	0		0	4037.834521	1.34594484
28	15	208.932503		0	4246.767023	1.415589008
29	20	278.57667		0	4525.343693	1.508447898
30	0	0		0	4525.343693	1.508447898
Desember						
1	0	0		0	4525.343693	1.508447898
2	15	208.932503		0	4734.276196	1.578092065
3	0	0		0	4734.276196	1.578092065
4	0	0		0	4734.276196	1.578092065
5	31	431.793839		0	5166.070034	1.722023345
6	10	139.288335		0	5305.358369	1.76845279
7	0	0		0	5305.358369	1.76845279
8	25	348.220838		0	5653.579207	1.884526402
9	6	83.573001		0	5737.152208	1.912384069
10	5	69.6441675		0	5806.796375	1.935598792
11	10	139.288335		0	5946.08471	1.982028237
12	15	208.932503	1500	0	4655.017213	1.551672404
13	20	278.57667	1500	0	3433.593883	1.144531294
14	40	557.15334		0	3990.747223	1.330249074
15	20	278.57667		0	4269.323893	1.423107964
16	62	863.587677	1500	0	3632.91157	1.210970523
17	30	417.865005		0	4050.776575	1.350258858
18	0	0		0	4050.776575	1.350258858
19	0	0		0	4050.776575	1.350258858
20	0	0		0	4050.776575	1.350258858
21	0	0		18	4032.776575	1.344258858
22	0	0		18	4014.776575	1.338258858
23	0	0		18	3996.776575	1.332258858
24	0	0		18	3978.776575	1.326258858
25	0	0		18	3960.776575	1.320258858
26	0	0		18	3942.776575	1.314258858
27	0	0		18	3924.776575	1.308258858
28	0	0		18	3906.776575	1.302258858
29	0	0		18	3888.776575	1.296258858
30	0	0		18	3870.776575	1.290258858
31	0	0		18	3852.776575	1.284258858

TAMAN ALUMNI ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	94.9644225		0	1392.868129	0.464289376
2	0	0		0	1392.868129	0.464289376
3	6	63.309615		0	1456.177744	0.485392581
4	0	0		0	1456.177744	0.485392581
5	10	105.516025		0	1561.693769	0.52056459
6	0	0		0	1561.693769	0.52056459
7	0	0		0	1561.693769	0.52056459
8	0	0		0	1561.693769	0.52056459
9	120	1266.1923		0	2827.886069	0.94262869
10	9	94.9644225		0	2922.850491	0.974283497
11	0	0		0	2922.850491	0.974283497
12	12	126.61923		0	3049.469721	1.016489907
13	60	633.09615		0	3682.565871	1.227521957
14	0	0		0	3682.565871	1.227521957
15	0	0		0	3682.565871	1.227521957
16	0	0		0	3682.565871	1.227521957
17	21	221.5836525		18	3886.149524	1.295383175
18	0	0		18	3868.149524	1.289383175
19	0	0		0	3868.149524	1.289383175
20	0	0		0	3868.149524	1.289383175
21	10	105.516025		0	3973.665549	1.324555183
22	0	0		0	3973.665549	1.324555183
23	0	0		0	3973.665549	1.324555183
24	0	0		0	3973.665549	1.324555183
25	0	0		0	3973.665549	1.324555183
26	0	0		0	3973.665549	1.324555183
27	0	0		0	3973.665549	1.324555183
28	0	0		0	3973.665549	1.324555183
29	0	0		0	3973.665549	1.324555183
30	0	0		0	3973.665549	1.324555183
31	81	854.6798025		0	4828.345351	1.60944845
Februari				36		
1	0	0		0	4828.345351	1.60944845
2	24	253.23846	1000	0	4081.583811	1.360527937
3	26	274.341665		0	4355.925476	1.451975159
4	0	0		0	4355.925476	1.451975159
5	26	274.341665		0	4630.267141	1.54342238
6	0	0		0	4630.267141	1.54342238
7	0	0		0	4630.267141	1.54342238
8	0	0		0	4630.267141	1.54342238
9	15	158.2740375		0	4788.541179	1.596180393
10	0	0		0	4788.541179	1.596180393
11	0	0		0	4788.541179	1.596180393
12	0	0		0	4788.541179	1.596180393
13	0	0		0	4788.541179	1.596180393
14	0	0		0	4788.541179	1.596180393
15	35	369.3060875	1000	0	4157.847266	1.385949089
16	50	527.580125	1000	0	3685.427391	1.228475797
17	0	0		0	3685.427391	1.228475797
18	0	0		0	3685.427391	1.228475797
19	0	0		0	3685.427391	1.228475797
20	18	189.928845		0	3875.356236	1.291785412
21	15	158.2740375		0	4033.630274	1.344543425
22	30	316.548075		0	4350.178349	1.45005945
23	15	158.2740375		0	4508.452386	1.502817462
24	12	126.61923	1000	0	3635.071616	1.211690539
25	20	211.03205		0	3846.103666	1.282034555
26	21	221.5836525		0	4067.687319	1.355895773
27	50	527.580125		0	4595.267444	1.531755815
28	16	168.82564		0	4764.093084	1.588031028
Maret				0		
1	16	168.82564		0	4932.918724	1.644306241
2	0	0		0	4932.918724	1.644306241
3	19	200.4804475	1000	0	4133.399171	1.377799724
4	5	52.7580125		0	4186.157184	1.395385728
5	20	211.03205		0	4397.189234	1.465729745
6	22	232.135255		0	4629.324489	1.543108163
7	0	0		0	4629.324489	1.543108163
8	0	0		0	4629.324489	1.543108163
9	0	0		0	4629.324489	1.543108163
10	48	506.47692	1000	0	4135.801409	1.37860047

11	0	0		0	4135.801409	1.37860047
12	84	886.33461	1000	0	4022.136019	1.340712006
13	0	0		0	4022.136019	1.340712006
14	0	0		18	4004.136019	1.334712006
15	0	0		18	3986.136019	1.328712006
16	0	0		18	3968.136019	1.322712006
17	73	770.2669825	1000	18	3720.403001	1.240134334
18	0	0		0	3720.403001	1.240134334
19	0	0		0	3720.403001	1.240134334
20	8	84.41282		0	3804.815821	1.26827194
21	0	0		0	3804.815821	1.26827194
22	0	0		0	3804.815821	1.26827194
23	0	0		0	3804.815821	1.26827194
24	0	0		0	3804.815821	1.26827194
25	0	0		0	3804.815821	1.26827194
26	0	0		0	3804.815821	1.26827194
27	0	0		0	3804.815821	1.26827194
28	0	0		0	3804.815821	1.26827194
29	0	0		0	3804.815821	1.26827194
30	20	211.03205		0	4015.847871	1.338615957
31	5	52.7580125		0	4068.605884	1.356201961
April				72		
1	10	105.516025		0	4174.121909	1.39137397
2	0	0		0	4174.121909	1.39137397
3	0	0		0	4174.121909	1.39137397
4	0	0		0	4174.121909	1.39137397
5	0	0		0	4174.121909	1.39137397
6	5	52.7580125		0	4226.879921	1.408959974
7	0	0		0	4226.879921	1.408959974
8	0	0		0	4226.879921	1.408959974
9	0	0		0	4226.879921	1.408959974
10	0	0		0	4226.879921	1.408959974
11	0	0		0	4226.879921	1.408959974
12	0	0		0	4226.879921	1.408959974
13	0	0		0	4226.879921	1.408959974
14	0	0		0	4226.879921	1.408959974
15	0	0		0	4226.879921	1.408959974
16	0	0		0	4226.879921	1.408959974
17	0	0		0	4226.879921	1.408959974
18	0	0		0	4226.879921	1.408959974
19	0	0		0	4226.879921	1.408959974
20	0	0		0	4226.879921	1.408959974
21	10	105.516025		0	4332.395946	1.444131982
22	15	158.2740375		0	4490.669984	1.496889995
23	0	0		0	4490.669984	1.496889995
24	0	0		0	4490.669984	1.496889995
25	0	0		0	4490.669984	1.496889995
26	0	0		0	4490.669984	1.496889995
27	0	0		0	4490.669984	1.496889995
28	10	105.516025		0	4596.186009	1.532062003
29	0	0		0	4596.186009	1.532062003
30	0	0		0	4596.186009	1.532062003

Mei				0		
1	0	0		0	4596.186009	1.532062003
2	0	0		0	4596.186009	1.532062003
3	0	0		0	4596.186009	1.532062003
4	0	0		0	4596.186009	1.532062003
5	0	0		0	4596.186009	1.532062003
6	0	0		0	4596.186009	1.532062003
7	0	0		0	4596.186009	1.532062003
8	0	0		0	4596.186009	1.532062003
9	0	0		0	4596.186009	1.532062003
10	0	0		0	4596.186009	1.532062003
11	25	263.7900625	1000	0	3859.976071	1.28665869
12	0	0		0	3859.976071	1.28665869
13	23	242.6868575		0	4102.662929	1.36755431
14	0	0		0	4102.662929	1.36755431
15	0	0		0	4102.662929	1.36755431
16	15	158.2740375		0	4260.936966	1.420312322
17	0	0		0	4260.936966	1.420312322
18	21	221.5836525		0	4482.520619	1.49417354
19	0	0		0	4482.520619	1.49417354
20	0	0		0	4482.520619	1.49417354
21	0	0		0	4482.520619	1.49417354
22	0	0		0	4482.520619	1.49417354
23	23	242.6868575		0	4725.207476	1.575069159
24	0	0		0	4725.207476	1.575069159
25	0	0		0	4725.207476	1.575069159
26	0	0		0	4725.207476	1.575069159
27	0	0		0	4725.207476	1.575069159
28	0	0		0	4725.207476	1.575069159
29	0	0		18	4707.207476	1.569069159
30	0	0		18	4689.207476	1.563069159
31	0	0		18	4671.207476	1.557069159
Juni				54		
1	0	0		18	4653.207476	1.551069159
2	0	0		18	4635.207476	1.545069159
3	0	0		18	4617.207476	1.539069159
4	0	0		0	4617.207476	1.539069159
5	0	0		0	4617.207476	1.539069159
6	0	0		0	4617.207476	1.539069159
7	0	0		0	4617.207476	1.539069159
8	0	0		0	4617.207476	1.539069159
9	0	0		0	4617.207476	1.539069159
10	50	527.580125	1000	0	4144.787601	1.381595867
11	0	0		0	4144.787601	1.381595867
12	0	0		0	4144.787601	1.381595867
13	0	0		0	4144.787601	1.381595867
14	0	0		0	4144.787601	1.381595867
15	0	0		18	4126.787601	1.375595867
16	0	0		18	4108.787601	1.369595867
17	0	0		18	4090.787601	1.363595867
18	0	0		18	4072.787601	1.357595867
19	0	0		18	4054.787601	1.351595867
20	0	0		18	4036.787601	1.345595867
21	0	0		18	4018.787601	1.339595867
22	0	0		18	4000.787601	1.333595867
23	0	0		18	3982.787601	1.327595867
24	0	0		18	3964.787601	1.321595867
25	0	0		18	3946.787601	1.315595867
26	0	0		18	3928.787601	1.309595867
27	0	0		18	3910.787601	1.303595867
28	0	0		18	3892.787601	1.297595867
29	0	0		18	3874.787601	1.291595867
30	0	0		18	3856.787601	1.285595867
Juli				342		
1	0	0		18	3838.787601	1.279595867
2	0	0		18	3820.787601	1.273595867
3	0	0		0	3820.787601	1.273595867
4	0	0		0	3820.787601	1.273595867
5	0	0		0	3820.787601	1.273595867
6	0	0		0	3820.787601	1.273595867
7	0	0		0	3820.787601	1.273595867
8	0	0		0	3820.787601	1.273595867
9	0	0		18	3802.787601	1.267595867
10	0	0		0	3802.787601	1.267595867



11	0	0		0	3802.787601	1.267595867
12	0	0		0	3802.787601	1.267595867
13	0	0		0	3802.787601	1.267595867
14	0	0		0	3802.787601	1.267595867
15	0	0		0	3802.787601	1.267595867
16	0	0		18	3784.787601	1.261595867
17	0	0		18	3766.787601	1.255595867
18	0	0		18	3748.787601	1.249595867
19	0	0		18	3730.787601	1.243595867
20	0	0		18	3712.787601	1.237595867
21	0	0		18	3694.787601	1.231595867
22	0	0		18	3676.787601	1.225595867
23	0	0		18	3658.787601	1.219595867
24	0	0		18	3640.787601	1.213595867
25	0	0		18	3622.787601	1.207595867
26	0	0		18	3604.787601	1.201595867
27	0	0		18	3586.787601	1.195595867
28	0	0		18	3568.787601	1.189595867
29	0	0		18	3550.787601	1.183595867
30	0	0		18	3532.787601	1.177595867
31	0	0		18	3514.787601	1.171595867
Agustus				342		
1	0	0		18	3496.787601	1.165595867
2	0	0		18	3478.787601	1.159595867
3	0	0		18	3460.787601	1.153595867
4	0	0		18	3442.787601	1.147595867
5	0	0		18	3424.787601	1.141595867
6	0	0		18	3406.787601	1.135595867
7	0	0		18	3388.787601	1.129595867
8	0	0		18	3370.787601	1.123595867
9	0	0		18	3352.787601	1.117595867
10	0	0		18	3334.787601	1.111595867
11	0	0		18	3316.787601	1.105595867
12	0	0		18	3298.787601	1.099595867
13	0	0		18	3280.787601	1.093595867
14	0	0		18	3262.787601	1.087595867
15	0	0		18	3244.787601	1.081595867
16	0	0		18	3226.787601	1.075595867
17	0	0		18	3208.787601	1.069595867
18	0	0		18	3190.787601	1.063595867
19	0	0		18	3172.787601	1.057595867
20	0	0		18	3154.787601	1.051595867
21	0	0		18	3136.787601	1.045595867
22	0	0		18	3118.787601	1.039595867
23	0	0		18	3100.787601	1.033595867
24	0	0		0	3100.787601	1.033595867
25	0	0		0	3100.787601	1.033595867
26	0	0		0	3100.787601	1.033595867
27	0	0		0	3100.787601	1.033595867
28	0	0		18	3082.787601	1.027595867
29	0	0		18	3064.787601	1.021595867
30	0	0		18	3046.787601	1.015595867
31	0	0		18	3028.787601	1.009595867

September				486		
1	0	0		18	3010.787601	1.003595867
2	0	0		18	2992.787601	0.997595867
3	0	0		18	2974.787601	0.991595867
4	0	0		18	2956.787601	0.985595867
5	0	0		18	2938.787601	0.979595867
6	0	0		0	2938.787601	0.979595867
7	0	0		0	2938.787601	0.979595867
8	0	0		0	2938.787601	0.979595867
9	0	0		0	2938.787601	0.979595867
10	0	0		0	2938.787601	0.979595867
11	0	0		18	2920.787601	0.973595867
12	0	0		0	2920.787601	0.973595867
13	0	0		0	2920.787601	0.973595867
14	0	0		0	2920.787601	0.973595867
15	0	0		0	2920.787601	0.973595867
16	0	0		18	2902.787601	0.967595867
17	0	0		0	2902.787601	0.967595867
18	0	0		18	2884.787601	0.961595867
19	0	0		18	2866.787601	0.955595867
20	0	0		0	2866.787601	0.955595867
21	0	0		0	2866.787601	0.955595867
22	0	0		0	2866.787601	0.955595867
23	0	0		0	2866.787601	0.955595867
24	0	0		0	2866.787601	0.955595867
25	0	0		0	2866.787601	0.955595867
26	0	0		0	2866.787601	0.955595867
27	0	0		0	2866.787601	0.955595867
28	0	0		0	2866.787601	0.955595867
29	0	0		18	2848.787601	0.949595867
30	0	0		18	2830.787601	0.943595867
Oktober				198		
1	0	0		18	2812.787601	0.937595867
2	0	0		18	2794.787601	0.931595867
3	0	0		18	2776.787601	0.925595867
4	0	0		18	2758.787601	0.919595867
5	0	0		18	2740.787601	0.913595867
6	0	0		18	2722.787601	0.907595867
7	0	0		18	2704.787601	0.901595867
8	0	0		0	2704.787601	0.901595867
9	0	0		0	2704.787601	0.901595867
10	0	0		0	2704.787601	0.901595867
11	0	0		0	2704.787601	0.901595867
12	0	0		0	2704.787601	0.901595867
13	0	0		18	2686.787601	0.895595867
14	0	0		18	2668.787601	0.889595867
15	0	0		0	2668.787601	0.889595867
16	0	0		0	2668.787601	0.889595867
17	0	0		0	2668.787601	0.889595867
18	0	0		0	2668.787601	0.889595867
19	0	0		0	2668.787601	0.889595867
20	0	0		0	2668.787601	0.889595867
21	0	0		18	2650.787601	0.883595867
22	0	0		18	2632.787601	0.877595867
23	0	0		18	2614.787601	0.871595867
24	0	0		18	2596.787601	0.865595867
25	0	0		18	2578.787601	0.859595867
26	0	0		18	2560.787601	0.853595867
27	0	0		18	2542.787601	0.847595867
28	0	0		18	2524.787601	0.841595867
29	0	0		0	2524.787601	0.841595867
30	0	0		0	2524.787601	0.841595867
31	0	0		0	2524.787601	0.841595867
November				306		
1	0	0		0	2524.787601	0.841595867
2	0	0		0	2524.787601	0.841595867
3	0	0		0	2524.787601	0.841595867
4	0	0		0	2524.787601	0.841595867
5	0	0		0	2524.787601	0.841595867
6	0	0		0	2524.787601	0.841595867
7	0	0		0	2524.787601	0.841595867
8	0	0		0	2524.787601	0.841595867
9	0	0		0	2524.787601	0.841595867
10	0	0		0	2524.787601	0.841595867

11	0	0		0	2524.787601	0.841595867
12	0	0		0	2524.787601	0.841595867
13	0	0		0	2524.787601	0.841595867
14	0	0		0	2524.787601	0.841595867
15	0	0		18	2506.787601	0.835595867
16	0	0		18	2488.787601	0.829595867
17	0	0		18	2470.787601	0.823595867
18	0	0		18	2452.787601	0.817595867
19	0	0		18	2434.787601	0.811595867
20	0	0		0	2434.787601	0.811595867
21	0	0		0	2434.787601	0.811595867
22	0	0		0	2434.787601	0.811595867
23	0	0		0	2434.787601	0.811595867
24	0	0		0	2434.787601	0.811595867
25	0	0		0	2434.787601	0.811595867
26	0	0		0	2434.787601	0.811595867
27	0	0		0	2434.787601	0.811595867
28	0	0		0	2434.787601	0.811595867
29	0	0		18	2416.787601	0.805595867
30	0	0		0	2416.787601	0.805595867
Desember				108		
1	0	0		0	2416.787601	0.805595867
2	0	0		0	2416.787601	0.805595867
3	0	0		0	2416.787601	0.805595867
4	0	0		0	2416.787601	0.805595867
5	0	0		0	2416.787601	0.805595867
6	0	0		0	2416.787601	0.805595867
7	0	0		0	2416.787601	0.805595867
8	0	0		0	2416.787601	0.805595867
9	0	0		0	2416.787601	0.805595867
10	0	0		0	2416.787601	0.805595867
11	0	0		0	2416.787601	0.805595867
12	0	0		0	2416.787601	0.805595867
13	0	0		0	2416.787601	0.805595867
14	0	0		0	2416.787601	0.805595867
15	0	0		0	2416.787601	0.805595867
16	0	0		0	2416.787601	0.805595867
17	0	0		0	2416.787601	0.805595867
18	0	0		0	2416.787601	0.805595867
19	0	0		0	2416.787601	0.805595867
20	0	0		0	2416.787601	0.805595867
21	0	0		0	2416.787601	0.805595867
22	0	0		0	2416.787601	0.805595867
23	0	0		0	2416.787601	0.805595867
24	0	0		0	2416.787601	0.805595867
25	0	0		0	2416.787601	0.805595867
26	0	0		0	2416.787601	0.805595867
27	0	0		0	2416.787601	0.805595867
28	0	0		0	2416.787601	0.805595867
29	0	0		0	2416.787601	0.805595867
30	0	0		0	2416.787601	0.805595867
31	0	0		18	2398.787601	0.799595867

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS(m3)	tinggi air (m)
1	0	0		18	3834.776575	1.278258858
2	0	0		18	3816.776575	1.272258858
3	22	306.434337		0	4123.210912	1.374403637
4	65	905.374178		0	5028.585089	1.67619503
5	9	125.359502		0	5153.944591	1.71798153
6	15	208.932503		0	5362.877093	1.787625698
7	14	195.003669		0	5557.880762	1.852626921
8	0	0		0	5557.880762	1.852626921
9	0	0		0	5557.880762	1.852626921
10	15	208.932503		0	5766.813265	1.922271088
11	0	0		0	5766.813265	1.922271088
12	0	0		0	5766.813265	1.922271088
13	12	167.146002		0	5933.959267	1.977986422
14	0	0		0	5933.959267	1.977986422
15	0	0		0	5933.959267	1.977986422
16	5	69.6441675		0	6003.603434	2.001201145
17	0	0		0	6003.603434	2.001201145
18	5	69.6441675		0	6073.247602	2.024415867
19	0	0		0	6073.247602	2.024415867
20	8	111.430668		0	6184.67827	2.061559423
21	0	0		0	6184.67827	2.061559423
22	0	0		0	6184.67827	2.061559423
23	0	0		0	6184.67827	2.061559423
24	0	0		18	6166.67827	2.055559423
25	0	0		18	6148.67827	2.049559423
26	0	0		18	6130.67827	2.043559423
27	30	417.865005		0	6548.543275	2.182847758
28	6	83.573001		0	6632.116276	2.210705425
29	5	69.6441675		0	6701.760443	2.233920148
30	0	0		0	6701.760443	2.233920148
31	0	0		0	6701.760443	2.233920148
Februari						
1	5	69.6441675		0	6771.404611	2.25713487
2	10	139.288335		0	6910.692946	2.303564315
3	15	208.932503		0	7119.625448	2.373208483
4	0	0		0	7119.625448	2.373208483
5	0	0		0	7119.625448	2.373208483
6	0	0		0	7119.625448	2.373208483
7	0	0		18	7101.625448	2.367208483
8	0	0		18	7083.625448	2.361208483
9	0	0		18	7065.625448	2.355208483
10	5	69.6441675		0	7135.269616	2.378423205
11	0	0		0	7135.269616	2.378423205
12	10	139.288335		0	7274.557951	2.42485265
13	0	0		0	7274.557951	2.42485265
14	0	0		0	7274.557951	2.42485265
15	40	557.15334	1500	0	6331.711291	2.11057043
16	15	208.932503		0	6540.643793	2.180214598
17	70	975.018345	1500	0	6015.662138	2.005220713
18	14	195.003669	1500	0	4710.665807	1.570221936
19	15	208.932503	1500	0	3419.59831	1.139866103
20	10	139.288335		0	3558.886645	1.186295548
21	40	557.15334		0	4116.039985	1.372013328
22	50	696.441675	1500	0	3312.48166	1.104160553
23	20	278.57667		0	3591.05833	1.197019443
24	0	0		0	3591.05833	1.197019443
25	0	0		0	3591.05833	1.197019443
26	8	111.430668		0	3702.488998	1.234162999
27	0	0		0	3702.488998	1.234162999
28	20	278.57667		0	3981.065668	1.327021889
Maret						
1	14	195.003669	1500	0	2676.069337	0.892023112
2	20	278.57667		0	2954.646007	0.984882002
3	25	348.220838		0	3302.866844	1.100955615
4	30	417.865005		0	3720.731849	1.24024395
5	64	891.445344	1500	0	3112.177193	1.037392398
6	18	250.719003		0	3362.896196	1.120965399
7	0	0		0	3362.896196	1.120965399
8	0	0		0	3362.896196	1.120965399
9	26	362.149671		0	3725.045867	1.241681956

10	58	807.872343		0	4532.91821	1.510972737
11	12	167.146002	1500	0	3200.064212	1.066688071
12	28	390.007338	1500	0	2090.07155	0.696690517
13	56	780.014676		0	2870.086226	0.956695409
14	67	933.231845	1500	0	2303.318071	0.76777269
15	0	0		0	2303.318071	0.76777269
16	3	41.7865005		0	2345.104571	0.781701524
17	4	55.715334		0	2400.819905	0.800273302
18	2	27.857667		0	2428.677572	0.809559191
19	10	139.288335		0	2567.965907	0.855988636
20	0	0		0	2567.965907	0.855988636
21	7	97.5018345		0	2665.467742	0.888489247
22	0	0		0	2665.467742	0.888489247
23	0	0		0	2665.467742	0.888489247
24	0	0		0	2665.467742	0.888489247
25	0	0		18	2647.467742	0.882489247
26	0	0		18	2629.467742	0.876489247
27	0	0		18	2611.467742	0.870489247
28	0	0		18	2593.467742	0.864489247
29	31	431.793839		0	3025.26158	1.008420527
30	19	264.647837		0	3289.909417	1.096636472
31	10	139.288335		0	3429.197752	1.143065917
April						
1	19	264.647837		0	3693.845588	1.231281863
2	20	278.57667		0	3972.422258	1.324140753
3	25	348.220838		0	4320.643096	1.440214365
4	30	417.865005		0	4738.508101	1.5795027
5	60	835.73001		0	5574.238111	1.85807937
6	19	264.647837		0	5838.885947	1.946295316
7	0	0		0	5838.885947	1.946295316
8	0	0		0	5838.885947	1.946295316
9	0	0		0	5838.885947	1.946295316
10	0	0		18	5820.885947	1.940295316
11	0	0		18	5802.885947	1.934295316
12	0	0		18	5784.885947	1.928295316
13	0	0		18	5766.885947	1.922295316
14	0	0		18	5748.885947	1.916295316
15	0	0		18	5730.885947	1.910295316
16	0	0		18	5712.885947	1.904295316
17	0	0		18	5694.885947	1.898295316
18	0	0		18	5676.885947	1.892295316
19	0	0		18	5658.885947	1.886295316
20	0	0		18	5640.885947	1.880295316
21	0	0		18	5622.885947	1.874295316
22	0	0		18	5604.885947	1.868295316
23	0	0		18	5586.885947	1.862295316
24	0	0		18	5568.885947	1.856295316
25	0	0		18	5550.885947	1.850295316
26	0	0		18	5532.885947	1.844295316
27	0	0		18	5514.885947	1.838295316
28	0	0		18	5496.885947	1.832295316
29	0	0		18	5478.885947	1.826295316
30	0	0		18	5460.885947	1.820295316

Mei						
1	0	0		18	5442.885947	1.814295316
2	0	0		18	5424.885947	1.808295316
3	0	0		18	5406.885947	1.802295316
4	0	0		18	5388.885947	1.796295316
5	0	0		18	5370.885947	1.790295316
6	0	0		18	5352.885947	1.784295316
7	0	0		18	5334.885947	1.778295316
8	0	0		18	5316.885947	1.772295316
9	0	0		18	5298.885947	1.766295316
10	0	0		18	5280.885947	1.760295316
11	0	0		18	5262.885947	1.754295316
12	0	0		18	5244.885947	1.748295316
13	0	0		18	5226.885947	1.742295316
14	0	0		18	5208.885947	1.736295316
15	0	0		18	5190.885947	1.730295316
16	0	0		18	5172.885947	1.724295316
17	0	0		18	5154.885947	1.718295316
18	0	0		18	5136.885947	1.712295316
19	0	0		18	5118.885947	1.706295316
20	0	0		18	5100.885947	1.700295316
21	0	0		18	5082.885947	1.694295316
22	0	0		18	5064.885947	1.688295316
23	0	0		18	5046.885947	1.682295316
24	0	0		18	5028.885947	1.676295316
25	0	0		18	5010.885947	1.670295316
26	0	0		18	4992.885947	1.664295316
27	0	0		18	4974.885947	1.658295316
28	0	0		18	4956.885947	1.652295316
29	0	0		18	4938.885947	1.646295316
30	0	0		18	4920.885947	1.640295316
31	0	0		18	4902.885947	1.634295316
Juni						
1	0	0		18	4884.885947	1.628295316
2	0	0		18	4866.885947	1.622295316
3	0	0		18	4848.885947	1.616295316
4	0	0		18	4830.885947	1.610295316
5	0	0		18	4812.885947	1.604295316
6	0	0		18	4794.885947	1.598295316
7	0	0		18	4776.885947	1.592295316
8	0	0		18	4758.885947	1.586295316
9	0	0		18	4740.885947	1.580295316
10	0	0		18	4722.885947	1.574295316
11	0	0		18	4704.885947	1.568295316
12	0	0		18	4686.885947	1.562295316
13	0	0		18	4668.885947	1.556295316
14	0	0		18	4650.885947	1.550295316
15	0	0		18	4632.885947	1.544295316
16	0	0		18	4614.885947	1.538295316
17	0	0		18	4596.885947	1.532295316
18	0	0		18	4578.885947	1.526295316
19	0	0		18	4560.885947	1.520295316
20	0	0		18	4542.885947	1.514295316
21	0	0		18	4524.885947	1.508295316
22	0	0		18	4506.885947	1.502295316
23	0	0		18	4488.885947	1.496295316
24	0	0		18	4470.885947	1.490295316
25	0	0		18	4452.885947	1.484295316
26	0	0		18	4434.885947	1.478295316
27	0	0		18	4416.885947	1.472295316
28	0	0		18	4398.885947	1.466295316
29	0	0		18	4380.885947	1.460295316
30	0	0		18	4362.885947	1.454295316
Juli						
1	0	0		18	4344.885947	1.448295316
2	0	0		18	4326.885947	1.442295316
3	0	0		18	4308.885947	1.436295316
4	0	0		18	4290.885947	1.430295316
5	0	0		18	4272.885947	1.424295316
6	0	0		18	4254.885947	1.418295316
7	0	0		18	4236.885947	1.412295316
8	0	0		18	4218.885947	1.406295316
9	0	0		18	4200.885947	1.400295316
10	0	0		18	4182.885947	1.394295316

11	0	0		18	4164.885947	1.388295316
12	0	0		18	4146.885947	1.382295316
13	0	0		18	4128.885947	1.376295316
14	0	0		18	4110.885947	1.370295316
15	0	0		18	4092.885947	1.364295316
16	0	0		18	4074.885947	1.358295316
17	0	0		18	4056.885947	1.352295316
18	0	0		18	4038.885947	1.346295316
19	0	0		18	4020.885947	1.340295316
20	0	0		18	4002.885947	1.334295316
21	0	0		18	3984.885947	1.328295316
22	0	0		18	3966.885947	1.322295316
23	0	0		18	3948.885947	1.316295316
24	0	0		18	3930.885947	1.310295316
25	0	0		18	3912.885947	1.304295316
26	0	0		18	3894.885947	1.298295316
27	0	0		18	3876.885947	1.292295316
28	0	0		18	3858.885947	1.286295316
29	0	0		18	3840.885947	1.280295316
30	0	0		18	3822.885947	1.274295316
31	0	0		18	3804.885947	1.268295316
Agustus						
1	0	0		18	3786.885947	1.262295316
2	0	0		18	3768.885947	1.256295316
3	0	0		18	3750.885947	1.250295316
4	0	0		18	3732.885947	1.244295316
5	0	0		18	3714.885947	1.238295316
6	0	0		18	3696.885947	1.232295316
7	0	0		18	3678.885947	1.226295316
8	0	0		18	3660.885947	1.220295316
9	0	0		18	3642.885947	1.214295316
10	0	0		18	3624.885947	1.208295316
11	0	0		18	3606.885947	1.202295316
12	0	0		18	3588.885947	1.196295316
13	0	0		18	3570.885947	1.190295316
14	0	0		18	3552.885947	1.184295316
15	0	0		18	3534.885947	1.178295316
16	0	0		18	3516.885947	1.172295316
17	0	0		18	3498.885947	1.166295316
18	0	0		18	3480.885947	1.160295316
19	0	0		18	3462.885947	1.154295316
20	0	0		18	3444.885947	1.148295316
21	0	0		18	3426.885947	1.142295316
22	0	0		18	3408.885947	1.136295316
23	0	0		18	3390.885947	1.130295316
24	0	0		18	3372.885947	1.124295316
25	0	0		18	3354.885947	1.118295316
26	0	0		18	3336.885947	1.112295316
27	0	0		18	3318.885947	1.106295316
28	0	0		18	3300.885947	1.100295316
29	0	0		18	3282.885947	1.094295316
30	0	0		18	3264.885947	1.088295316
31	0	0		18	3246.885947	1.082295316

September						
1	0	0		18	3228.885947	1.076295316
2	0	0		18	3210.885947	1.070295316
3	0	0		18	3192.885947	1.064295316
4	0	0		18	3174.885947	1.058295316
5	0	0		18	3156.885947	1.052295316
6	0	0		18	3138.885947	1.046295316
7	0	0		18	3120.885947	1.040295316
8	0	0		18	3102.885947	1.034295316
9	0	0		18	3084.885947	1.028295316
10	0	0		18	3066.885947	1.022295316
11	0	0		18	3048.885947	1.016295316
12	0	0		18	3030.885947	1.010295316
13	0	0		18	3012.885947	1.004295316
14	0	0		18	2994.885947	0.998295316
15	0	0		18	2976.885947	0.992295316
16	0	0		18	2958.885947	0.986295316
17	0	0		18	2940.885947	0.980295316
18	0	0		18	2922.885947	0.974295316
19	0	0		18	2904.885947	0.968295316
20	0	0		18	2886.885947	0.962295316
21	0	0		18	2868.885947	0.956295316
22	0	0		18	2850.885947	0.950295316
23	0	0		18	2832.885947	0.944295316
24	0	0		18	2814.885947	0.938295316
25	0	0		18	2796.885947	0.932295316
26	0	0		18	2778.885947	0.926295316
27	0	0		18	2760.885947	0.920295316
28	0	0		18	2742.885947	0.914295316
29	0	0		18	2724.885947	0.908295316
30	0	0		18	2706.885947	0.902295316
Oktober						
1	0	0		18	2688.885947	0.896295316
2	0	0		18	2670.885947	0.890295316
3	0	0		18	2652.885947	0.884295316
4	0	0		18	2634.885947	0.878295316
5	0	0		18	2616.885947	0.872295316
6	0	0		18	2598.885947	0.866295316
7	0	0		18	2580.885947	0.860295316
8	0	0		18	2562.885947	0.854295316
9	0	0		18	2544.885947	0.848295316
10	0	0		18	2526.885947	0.842295316
11	0	0		18	2508.885947	0.836295316
12	0	0		18	2490.885947	0.830295316
13	0	0		18	2472.885947	0.824295316
14	0	0		18	2454.885947	0.818295316
15	0	0		18	2436.885947	0.812295316
16	0	0		18	2418.885947	0.806295316
17	0	0		18	2400.885947	0.800295316
18	0	0		18	2382.885947	0.794295316
19	0	0		18	2364.885947	0.788295316
20	0	0		18	2346.885947	0.782295316
21	0	0		18	2328.885947	0.776295316
22	0	0		18	2310.885947	0.770295316
23	0	0		18	2292.885947	0.764295316
24	0	0		18	2274.885947	0.758295316
25	0	0		18	2256.885947	0.752295316
26	0	0		18	2238.885947	0.746295316
27	0	0		18	2220.885947	0.740295316
28	0	0		18	2202.885947	0.734295316
29	0	0		18	2184.885947	0.728295316
30	0	0		18	2166.885947	0.722295316
31	0	0		18	2148.885947	0.716295316
November						
1	0	0		18	2130.885947	0.710295316
2	0	0		18	2112.885947	0.704295316
3	0	0		18	2094.885947	0.698295316
4	0	0		18	2076.885947	0.692295316
5	0	0		18	2058.885947	0.686295316
6	0	0		18	2040.885947	0.680295316
7	0	0		18	2022.885947	0.674295316
8	0	0		18	2004.885947	0.668295316
9	0	0		18	1986.885947	0.662295316
10	0	0		18	1968.885947	0.656295316



11	0	0		18	1950.885947	0.650295316
12	0	0		18	1932.885947	0.644295316
13	0	0		18	1914.885947	0.638295316
14	0	0		18	1896.885947	0.632295316
15	0	0		18	1878.885947	0.626295316
16	12	167.146002		0	2046.031949	0.68201065
17	0	0		0	2046.031949	0.68201065
18	0	0		0	2046.031949	0.68201065
19	5.5	76.6085843		0	2122.640534	0.707546845
20	7	97.5018345		0	2220.142368	0.740047456
21	0	0		0	2220.142368	0.740047456
22	0	0		0	2220.142368	0.740047456
23	5	69.6441675		0	2289.786536	0.763262179
24	0	0		0	2289.786536	0.763262179
25	0	0		0	2289.786536	0.763262179
26	14	195.003669		0	2484.790205	0.828263402
27	15	208.932503		0	2693.722707	0.897907569
28	0	0		0	2693.722707	0.897907569
29	30	417.865005		0	3111.587712	1.037195904
30	1	13.9288335		0	3125.516546	1.041838849
Desember						
1	0	0		0	3125.516546	1.041838849
2	1.5	20.8932503		0	3146.409796	1.048803265
3	0	0		0	3146.409796	1.048803265
4	0	0		0	3146.409796	1.048803265
5	22	306.434337		0	3452.844133	1.150948044
6	10	139.288335		0	3592.132468	1.197377489
7	0	0		0	3592.132468	1.197377489
8	25	348.220838		0	3940.353305	1.313451102
9	6	83.573001		0	4023.926306	1.341308769
10	5	69.6441675		0	4093.570474	1.364523491
11	10	139.288335		0	4232.858809	1.410952936
12	15	208.932503		0	4441.791311	1.480597104
13	20	278.57667		0	4720.367981	1.573455994
14	40	557.15334		0	5277.521321	1.759173774
15	20	278.57667		0	5556.097991	1.852032664
16	62	863.587677		0	6419.685668	2.139895223
17	30.5	424.829422		0	6844.51509	2.28150503
18	0	0		0	6844.51509	2.28150503
19	134	1866.46369		0	8710.978779	2.903659593
20	0	0		0	8710.978779	2.903659593
21	13.5	188.039252		0	8899.018031	2.966339344
22	6.5	90.5374178		0	8989.555449	2.996518483
23	8	111.430668	1500	0	7600.986117	2.533662039
24	1.5	20.8932503		0	7621.879367	2.540626456
25	0	0		0	7621.879367	2.540626456
26	12.5	174.110419		0	7795.989786	2.598663262
27	23	320.363171		0	8116.352957	2.705450986
28	11	153.217169		0	8269.570125	2.756523375
29	8	111.430668		0	8381.000793	2.793666931
30	49	682.512842	1500	0	7563.513635	2.521171212
31	0	0		0	7563.513635	2.521171212

**TAMAN ALUMNI ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	<b>Vol. I (m3)</b>	<b>Vol O 1</b>	<b>Vol O (m3)</b>	<b>DS (m3)</b>	<b>tinggi air (m)</b>
1	5	52.758013		0	2451.545614	0.817181871
2	10	105.51603		0	2557.061639	0.85235388
3	0	0		0	2557.061639	0.85235388
4	0	0		0	2557.061639	0.85235388
5	0	0		0	2557.061639	0.85235388
6	20	211.03205		0	2768.093689	0.922697896
7	0	0		0	2768.093689	0.922697896
8	10	105.51603		0	2873.609714	0.957869905
9	0	0		0	2873.609714	0.957869905
10	25	263.79006		0	3137.399776	1.045799925
11	0	0		0	3137.399776	1.045799925
12	0	0		0	3137.399776	1.045799925
13	0	0		0	3137.399776	1.045799925
14	10	105.51603		0	3242.915801	1.080971934
15	0	0		0	3242.915801	1.080971934
16	0	0		0	3242.915801	1.080971934
17	0	0		0	3242.915801	1.080971934
18	0	0		18	3224.915801	1.074971934
19	0	0		18	3206.915801	1.068971934
20	5	52.758013		0	3259.673814	1.086557938
21	0	0		0	3259.673814	1.086557938
22	0	0		0	3259.673814	1.086557938
23	0	0		0	3259.673814	1.086557938
24	4	42.20641		0	3301.880224	1.100626741
25	15	158.27404		0	3460.154261	1.153384754
26	21	221.58365		0	3681.737914	1.227245971
27	0	0		0	3681.737914	1.227245971
28	0	0		0	3681.737914	1.227245971
29	6	63.309615		0	3745.047529	1.248349176
30	18	189.92885		0	3934.976374	1.311658791
31	26	274.34167		0	4209.318039	1.403106013
<b>Februari</b>						
1	20	211.03205		0	4420.350089	1.47345003
2	25	263.79006		0	4684.140151	1.56138005
3	19	200.48045		0	4884.620599	1.628206866
4	0	0		0	4884.620599	1.628206866
5	0	0		0	4884.620599	1.628206866
6	0	0		0	4884.620599	1.628206866
7	0	0		0	4884.620599	1.628206866
8	20	211.03205	1000	0	4095.652649	1.36521755
9	0	0		0	4095.652649	1.36521755
10	0	0		0	4095.652649	1.36521755
11	0	0		0	4095.652649	1.36521755
12	30	316.54808		0	4412.200724	1.470733575
13	7	73.861218		0	4486.061941	1.49535398
14	47	495.92532	1000	0	3981.987259	1.327329086
15	0	0		0	3981.987259	1.327329086
16	13	137.17083		0	4119.158091	1.373052697
17	0	0		0	4119.158091	1.373052697
18	9	94.964423		0	4214.122514	1.404707505
19	0	0		0	4214.122514	1.404707505
20	0	0		0	4214.122514	1.404707505
21	5	52.758013		0	4266.880526	1.422293509
22	0	0		0	4266.880526	1.422293509
23	10	105.51603		0	4372.396551	1.457465517
24	8	84.41282		0	4456.809371	1.485603124
25	0	0		0	4456.809371	1.485603124
26	15	158.27404		0	4615.083409	1.538361136
27	0	0		0	4615.083409	1.538361136
28	0	0		0	4615.083409	1.538361136
<b>Maret</b>						
1	20	211.03205		0	4826.115459	1.608705153
2	10	105.51603		0	4931.631484	1.643877161
3	0	0		0	4931.631484	1.643877161
4	3	31.654808		0	4963.286291	1.654428764
5	0	0		0	4963.286291	1.654428764
6	0	0		0	4963.286291	1.654428764
7	8	84.41282		0	5047.699111	1.68256637
8	14	147.72244	1000	0	4195.421546	1.398473849
9	0	0		0	4195.421546	1.398473849
10	0	0		0	4195.421546	1.398473849

11	0	0		0	4195.421546	1.398473849
12	20	211.03205		0	4406.453596	1.468817865
13	5	52.758013		0	4459.211609	1.48640387
14	7	73.861218		0	4533.072826	1.511024275
15	5	52.758013		0	4585.830839	1.52861028
16	0	0		0	4585.830839	1.52861028
17	20	211.03205		0	4796.862889	1.598954296
18	0	0		0	4796.862889	1.598954296
19	0	0		0	4796.862889	1.598954296
20	8	84.41282		0	4881.275709	1.627091903
21	0	0		0	4881.275709	1.627091903
22	0	0		0	4881.275709	1.627091903
23	30	316.54808	1000	0	4197.823784	1.399274595
24	0	0		0	4197.823784	1.399274595
25	20	211.03205	1000	0	3408.855834	1.136285278
26	25	263.79006		0	3672.645896	1.224215299
27	24	253.23846		0	3925.884356	1.308628119
28	0	0		0	3925.884356	1.308628119
29	27	284.89327	1000	0	3210.777624	1.070259208
30	0	0		0	3210.777624	1.070259208
31	0	0		0	3210.777624	1.070259208
April						
1	20	211.03205		0	3421.809674	1.140603225
2	40	422.0641	1000	0	2843.873774	0.947957925
3	39	411.5125		0	3255.386271	1.085128757
4	15	158.27404		0	3413.660309	1.13788677
5	7	73.861218		0	3487.521526	1.162507175
6	17	179.37724		0	3666.898769	1.22229959
7	9	94.964423		0	3761.863191	1.253954397
8	0	0		0	3761.863191	1.253954397
9	8	84.41282		0	3846.276011	1.282092004
10	10	105.51603	1000	0	2951.792036	0.983930679
11	30	316.54808		0	3268.340111	1.089446704
12	14	147.72244		0	3416.062546	1.138687515
13	0	0		0	3416.062546	1.138687515
14	30	316.54808		0	3732.610621	1.24420354
15	0	0		0	3732.610621	1.24420354
16	9	94.964423		0	3827.575044	1.275858348
17	8	84.41282		0	3911.987864	1.303995955
18	0	0		0	3911.987864	1.303995955
19	54	569.78654	1000	0	3481.774399	1.160591466
20	0	0		0	3481.774399	1.160591466
21	16	168.82564		0	3650.600039	1.21686668
22	0	0		0	3650.600039	1.21686668
23	9	94.964423		0	3745.564461	1.248521487
24	0	0		0	3745.564461	1.248521487
25	0	0		0	3745.564461	1.248521487
26	28	295.44487		0	4041.009331	1.34700311
27	10	105.51603	1000	0	3146.525356	1.048841785
28	0	0		0	3146.525356	1.048841785
29	20	211.03205		0	3357.557406	1.119185802
30	32	337.65128	1000	0	2695.208686	0.898402895

Mei						
1	21	221.58365		0	2916.792339	0.972264113
2	7	73.861218		0	2990.653556	0.996884519
3	31	327.09968		0	3317.753234	1.105917745
4	0	0		0	3317.753234	1.105917745
5	26	274.34167		0	3592.094899	1.197364966
6	8	84.41282		0	3676.507719	1.225502573
7	0	0		0	3676.507719	1.225502573
8	0	0		0	3676.507719	1.225502573
9	7	73.861218		0	3750.368936	1.250122979
10	0	0		0	3750.368936	1.250122979
11	6	63.309615		0	3813.678551	1.271226184
12	0	0		0	3813.678551	1.271226184
13	10	105.51603	1000	0	2919.194576	0.973064859
14	7	73.861218		0	2993.055794	0.997685265
15	0	0		0	2993.055794	0.997685265
16	0	0		0	2993.055794	0.997685265
17	0	0		0	2993.055794	0.997685265
18	0	0		18	2975.055794	0.991685265
19	0	0		18	2957.055794	0.985685265
20	8	84.41282		0	3041.468614	1.013822871
21	0	0		0	3041.468614	1.013822871
22	0	0		0	3041.468614	1.013822871
23	0	0		0	3041.468614	1.013822871
24	0	0		18	3023.468614	1.007822871
25	0	0		18	3005.468614	1.001822871
26	0	0		18	2987.468614	0.995822871
27	0	0		18	2969.468614	0.989822871
28	0	0		18	2951.468614	0.983822871
29	20	211.03205		0	3162.500664	1.054166888
30	15	158.27404		0	3320.774701	1.1069249
31	0	0		0	3320.774701	1.1069249
Juni						
1	0	0		0	3320.774701	1.1069249
2	0	0		0	3320.774701	1.1069249
3	0	0		18	3302.774701	1.1009249
4	0	0		18	3284.774701	1.0949249
5	0	0		18	3266.774701	1.0889249
6	0	0		18	3248.774701	1.0829249
7	0	0		18	3230.774701	1.0769249
8	0	0		18	3212.774701	1.0709249
9	0	0		18	3194.774701	1.0649249
10	0	0		18	3176.774701	1.0589249
11	0	0		18	3158.774701	1.0529249
12	0	0		18	3140.774701	1.0469249
13	0	0		18	3122.774701	1.0409249
14	0	0		18	3104.774701	1.0349249
15	0	0		18	3086.774701	1.0289249
16	0	0		18	3068.774701	1.0229249
17	0	0		18	3050.774701	1.0169249
18	0	0		18	3032.774701	1.0109249
19	0	0		18	3014.774701	1.0049249
20	0	0		18	2996.774701	0.9989249
21	0	0		18	2978.774701	0.9929249
22	0	0		18	2960.774701	0.9869249
23	0	0		18	2942.774701	0.9809249
24	0	0		18	2924.774701	0.9749249
25	0	0		18	2906.774701	0.9689249
26	0	0		18	2888.774701	0.9629249
27	0	0		18	2870.774701	0.9569249
28	0	0		18	2852.774701	0.9509249
29	0	0		18	2834.774701	0.9449249
30	0	0		18	2816.774701	0.9389249
Juli						
1	0	0		18	2798.774701	0.9329249
2	0	0		18	2780.774701	0.9269249
3	0	0		18	2762.774701	0.9209249
4	0	0		18	2744.774701	0.9149249
5	0	0		18	2726.774701	0.9089249
6	0	0		18	2708.774701	0.9029249
7	0	0		18	2690.774701	0.8969249
8	0	0		18	2672.774701	0.8909249
9	0	0		18	2654.774701	0.8849249
10	0	0		18	2636.774701	0.8789249

11	0	0		18	2618.774701	0.8729249
12	0	0		18	2600.774701	0.8669249
13	0	0		18	2582.774701	0.8609249
14	0	0		18	2564.774701	0.8549249
15	0	0		18	2546.774701	0.8489249
16	0	0		18	2528.774701	0.8429249
17	0	0		18	2510.774701	0.8369249
18	0	0		18	2492.774701	0.8309249
19	0	0		18	2474.774701	0.8249249
20	0	0		18	2456.774701	0.8189249
21	0	0		18	2438.774701	0.8129249
22	0	0		18	2420.774701	0.8069249
23	0	0		18	2402.774701	0.8009249
24	0	0		18	2384.774701	0.7949249
25	0	0		18	2366.774701	0.7889249
26	0	0		18	2348.774701	0.7829249
27	0	0		18	2330.774701	0.7769249
28	0	0		18	2312.774701	0.7709249
29	0	0		18	2294.774701	0.7649249
30	0	0		18	2276.774701	0.7589249
31	0	0		18	2258.774701	0.7529249
Agustus						
1	0	0		18	2240.774701	0.7469249
2	0	0		18	2222.774701	0.7409249
3	0	0		18	2204.774701	0.7349249
4	0	0		18	2186.774701	0.7289249
5	0	0		18	2168.774701	0.7229249
6	0	0		18	2150.774701	0.7169249
7	0	0		18	2132.774701	0.7109249
8	0	0		18	2114.774701	0.7049249
9	0	0		18	2096.774701	0.6989249
10	0	0		18	2078.774701	0.6929249
11	0	0		18	2060.774701	0.6869249
12	0	0		18	2042.774701	0.6809249
13	0	0		18	2024.774701	0.6749249
14	0	0		18	2006.774701	0.6689249
15	0	0		18	1988.774701	0.6629249
16	0	0		18	1970.774701	0.6569249
17	0	0		18	1952.774701	0.6509249
18	0	0		18	1934.774701	0.6449249
19	0	0		18	1916.774701	0.6389249
20	0	0		18	1898.774701	0.6329249
21	0	0		18	1880.774701	0.6269249
22	0	0		18	1862.774701	0.6209249
23	0	0		18	1844.774701	0.6149249
24	0	0		18	1826.774701	0.6089249
25	0	0		18	1808.774701	0.6029249
26	0	0		18	1790.774701	0.5969249
27	0	0		18	1772.774701	0.5909249
28	0	0		18	1754.774701	0.5849249
29	0	0		18	1736.774701	0.5789249
30	0	0		18	1718.774701	0.5729249
31	0	0		18	1700.774701	0.5669249

September						
1	0	0		18	1682.774701	0.5609249
2	0	0		18	1664.774701	0.5549249
3	0	0		18	1646.774701	0.5489249
4	0	0		18	1628.774701	0.5429249
5	0	0		18	1610.774701	0.5369249
6	0	0		18	1592.774701	0.5309249
7	0	0		18	1574.774701	0.5249249
8	0	0		18	1556.774701	0.5189249
9	0	0		18	1538.774701	0.5129249
10	0	0		18	1520.774701	0.5069249
11	0	0		18	1502.774701	0.5009249
12	0	0		18	1484.774701	0.4949249
13	0	0		18	1466.774701	0.4889249
14	0	0		18	1448.774701	0.4829249
15	0	0		18	1430.774701	0.4769249
16	0	0		18	1412.774701	0.4709249
17	0	0		18	1394.774701	0.4649249
18	0	0		18	1376.774701	0.4589249
19	0	0		18	1358.774701	0.4529249
20	0	0		18	1340.774701	0.4469249
21	0	0		18	1322.774701	0.4409249
22	0	0		18	1304.774701	0.4349249
23	0	0		18	1286.774701	0.4289249
24	0	0		18	1268.774701	0.4229249
25	0	0		18	1250.774701	0.4169249
26	0	0		18	1232.774701	0.4109249
27	0	0		18	1214.774701	0.4049249
28	0	0		18	1196.774701	0.3989249
29	0	0		18	1178.774701	0.3929249
30	0	0		18	1160.774701	0.3869249
Oktober						
1	0	0		18	1142.774701	0.3809249
2	0	0		18	1124.774701	0.3749249
3	0	0		18	1106.774701	0.3689249
4	0	0		18	1088.774701	0.3629249
5	0	0		18	1070.774701	0.3569249
6	0	0		18	1052.774701	0.3509249
7	0	0		18	1034.774701	0.3449249
8	0	0		18	1016.774701	0.3389249
9	0	0		18	998.7747013	0.3329249
10	23	242.68686		0	1241.461559	0.41382052
11	0	0		0	1241.461559	0.41382052
12	0	0		0	1241.461559	0.41382052
13	0	0		0	1241.461559	0.41382052
14	0	0		18	1223.461559	0.40782052
15	0	0		18	1205.461559	0.40182052
16	0	0		18	1187.461559	0.39582052
17	0	0		18	1169.461559	0.38982052
18	0	0		18	1151.461559	0.38382052
19	0	0		18	1133.461559	0.37782052
20	0	0		18	1115.461559	0.37182052
21	0	0		18	1097.461559	0.36582052
22	0	0		18	1079.461559	0.35982052
23	0	0		18	1061.461559	0.35382052
24	0	0		18	1043.461559	0.34782052
25	0	0		18	1025.461559	0.34182052
26	0	0		18	1007.461559	0.33582052
27	0	0		18	989.4615588	0.32982052
28	0	0		18	971.4615588	0.32382052
29	0	0		18	953.4615588	0.31782052
30	0	0		18	935.4615588	0.31182052
31	0	0		18	917.4615588	0.30582052
November						
1	0	0		18	899.4615588	0.29982052
2	0	0		18	881.4615588	0.29382052
3	19	200.48045		0	1081.942006	0.360647335
4	0	0		0	1081.942006	0.360647335
5	3	31.654808		0	1113.596814	0.371198938
6	0	0		0	1113.596814	0.371198938
7	30	316.54808		0	1430.144889	0.476714963
8	0	0		0	1430.144889	0.476714963
9	78	823.025		0	2253.169884	0.751056628
10	0	0		0	2253.169884	0.751056628

11	0	0		0	2253.169884	0.751056628
12	0	0		0	2253.169884	0.751056628
13	3	31.654808		0	2284.824691	0.76160823
14	0	0		0	2284.824691	0.76160823
15	0	0		0	2284.824691	0.76160823
16	0	0		0	2284.824691	0.76160823
17	0	0		18	2266.824691	0.75560823
18	27	284.89327		0	2551.717959	0.850572653
19	0	0		0	2551.717959	0.850572653
20	0	0		0	2551.717959	0.850572653
21	0	0		0	2551.717959	0.850572653
22	0	0		18	2533.717959	0.844572653
23	33	348.20288		0	2881.920841	0.96064028
24	0	0		0	2881.920841	0.96064028
25	0	0		0	2881.920841	0.96064028
26	0	0		0	2881.920841	0.96064028
27	0	0		18	2863.920841	0.95464028
28	21	221.58365		0	3085.504494	1.028501498
29	2	21.103205		0	3106.607699	1.0355359
30	60	633.09615		0	3739.703849	1.24656795
Desember						
1	0	0		0	3739.703849	1.24656795
2	30	316.54808	1000	0	3056.251924	1.018750641
3	50	527.58013		0	3583.832049	1.194610683
4	0	0		0	3583.832049	1.194610683
5	47	495.92532	1000	0	3079.757366	1.026585789
6	0	0		0	3079.757366	1.026585789
7	10	105.51603		0	3185.273391	1.061757797
8	5	52.758013		0	3238.031404	1.079343801
9	0	0		0	3238.031404	1.079343801
10	0	0		0	3238.031404	1.079343801
11	0	0		0	3238.031404	1.079343801
12	25	263.79006		0	3501.821466	1.167273822
13	0	0		0	3501.821466	1.167273822
14	0	0		0	3501.821466	1.167273822
15	0	0		0	3501.821466	1.167273822
16	54	569.78654	1000	0	3071.608001	1.023869334
17	0	0		0	3071.608001	1.023869334
18	43	453.71891	1000	0	2525.326909	0.841775636
19	1	10.551603		0	2535.878511	0.845292837
20	0	0		0	2535.878511	0.845292837
21	9	94.964423		0	2630.842934	0.876947645
22	0	0		0	2630.842934	0.876947645
23	0	0		0	2630.842934	0.876947645
24	7	73.861218		0	2704.704151	0.90156805
25	20	211.03205		0	2915.736201	0.971912067
26	21	221.58365		0	3137.319854	1.045773285
27	25	263.79006		0	3401.109916	1.133703305
28	0	0		0	3401.109916	1.133703305
29	0	0		0	3401.109916	1.133703305
30	0	0		0	3401.109916	1.133703305
31	57	601.44134		18	3984.551259	1.328183753

**ROBOTIKA ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	43	504.48		0	7500.00	3.00
2	62	727.38	1200	0	7027.38	2.81
3	86	1008.95	1200	0	6836.34	2.73
4	0	0.00		0	6836.34	2.73
5	0	0.00		0	6836.34	2.73
6	0	0.00		0	6836.34	2.73
7	78	915.10	1200	0	6551.43	2.62
8	0	0.00		0	6551.43	2.62
9	0	0.00		0	6551.43	2.62
10	26	305.03		0	6856.46	2.74
11	21	246.37	1200	0	5902.84	2.36
12	28	328.50		0	6231.33	2.49
13	10	117.32		0	6348.65	2.54
14	27	316.76		0	6665.41	2.67
15	0	0.00		0	6665.41	2.67
16	26	305.03		0	6970.45	2.79
17	0	0.00		0	6970.45	2.79
18	0	0.00		0	6970.45	2.79
19	0	0.00		0	6970.45	2.79
20	0	0.00		18	6952.45	2.78
21	0	0.00		18	6934.45	2.77
22	0	0.00		18	6916.45	2.77
23	0	0.00		18	6898.45	2.76
24	0	0.00		18	6880.45	2.75
25	0	0.00		18	6862.45	2.74
26	48	563.14	1200	0	6225.58	2.49
27	0	0.00		0	6225.58	2.49
28	9	105.59		0	6331.17	2.53
29	13	152.52		0	6483.69	2.59
30	0	0.00		0	6483.69	2.59
31	30	351.96		0	6835.65	2.73
<b>Februari</b>				<b>108</b>		
1	0	0		0	6835.646376	2.73425855
2	0	0		0	6835.646376	2.73425855
3	18	211.17594		0	7046.822313	2.818728925
4	0	0		0	7046.822313	2.818728925
5	0	0		0	7046.822313	2.818728925
6	0	0		0	7046.822313	2.818728925
7	0	0		18	7028.822313	2.811528925
8	26	305.03191	1200	0	6133.854222	2.453541689
9	47	551.40384	1200	0	5485.258058	2.194103223
10	25	293.29991		0	5778.55797	2.311423188
11	0	0		0	5778.55797	2.311423188
12	0	0		0	5778.55797	2.311423188
13	0	0		0	5778.55797	2.311423188
14	58	680.4558		0	6459.013767	2.583605507
15	0	0		0	6459.013767	2.583605507
16	0	0		0	6459.013767	2.583605507
17	0	0		0	6459.013767	2.583605507
18	0	0		18	6441.013767	2.576405507
19	56	656.9918	1200	0	5898.005571	2.359202228
20	0	0		0	5898.005571	2.359202228
21	3	35.19599		0	5933.201561	2.373280624
22	0	0		0	5933.201561	2.373280624
23	0	0		0	5933.201561	2.373280624
24	20	234.63993		0	6167.841491	2.467136596
25	54	633.52781		0	6801.369302	2.720547721
26	38	445.81587	1200	0	6047.185169	2.418874067
27	0	0		0	6047.185169	2.418874067
28	0	0		0	6047.185169	2.418874067
<b>Maret</b>				<b>36</b>		
1	0	0		0	6047.185169	2.418874067
2	0	0		18	6029.185169	2.411674067
3	19	222.90793		0	6252.093102	2.500837241
4	14	164.24795		0	6416.341053	2.566536421
5	0	0		0	6416.341053	2.566536421
6	10	117.31997		0	6533.661018	2.613464407
7	0	0		0	6533.661018	2.613464407
8	0	0		0	6533.661018	2.613464407
9	0	0		0	6533.661018	2.613464407



10	0	0		18	6515.661018	2.606264407
11	0	0		18	6497.661018	2.599064407
12	0	0		18	6479.661018	2.591864407
13	37	434.08387		0	6913.744889	2.765497955
14	6	70.391979		0	6984.136868	2.793654747
15	0	0		0	6984.136868	2.793654747
16	0	0		0	6984.136868	2.793654747
17	0	0		0	6984.136868	2.793654747
18	0	0		18	6966.136868	2.786454747
19	11	129.05196	1200	0	5895.188829	2.358075532
20	8	93.855972		0	5989.044801	2.39561792
21	0	0		0	5989.044801	2.39561792
22	88	1032.4157	1200	0	5821.460493	2.328584197
23	0	0		0	5821.460493	2.328584197
24	0	0		0	5821.460493	2.328584197
25	0	0		0	5821.460493	2.328584197
26	0	0		18	5803.460493	2.321384197
27	7	82.123976		0	5885.584469	2.354233787
28	0	0		0	5885.584469	2.354233787
29	0	0		0	5885.584469	2.354233787
30	30	351.9599		0	6237.544364	2.495017745
31	0	0		0	6237.544364	2.495017745
April				108		
1	0	0		0	6237.544364	2.495017745
2	0	0		0	6237.544364	2.495017745
3	0	0		18	6219.544364	2.487817745
4	0	0		18	6201.544364	2.480617745
5	15	175.97995		0	6377.524311	2.551009724
6	0	0		0	6377.524311	2.551009724
7	0	0		18	6359.524311	2.543809724
8	20	234.63993		0	6594.164241	2.637665696
9	0	0		0	6594.164241	2.637665696
10	0	0		0	6594.164241	2.637665696
11	0	0		0	6594.164241	2.637665696
12	0	0		18	6576.164241	2.630465696
13	0	0		18	6558.164241	2.623265696
14	0	0		18	6540.164241	2.616065696
15	0	0		18	6522.164241	2.608865696
16	0	0		18	6504.164241	2.601665696
17	0	0		18	6486.164241	2.594465696
18	0	0		18	6468.164241	2.587265696
19	0	0		18	6450.164241	2.580065696
20	34	398.88788	1200	0	5649.052122	2.259620849
21	0	0		0	5649.052122	2.259620849
22	25	293.29991		0	5942.352035	2.376940814
23	0	0		0	5942.352035	2.376940814
24	0	0		0	5942.352035	2.376940814
25	0	0		0	5942.352035	2.376940814
26	30	351.9599		0	6294.31193	2.517724772
27	0	0		0	6294.31193	2.517724772
28	0	0		0	6294.31193	2.517724772
29	0	0		0	6294.31193	2.517724772
30	0	0		18	6276.31193	2.510524772

Mei				216		
1	56	656.9918	1200	0	5733.303734	2.293321493
2	0	0		0	5733.303734	2.293321493
3	0	0		0	5733.303734	2.293321493
4	0	0		0	5733.303734	2.293321493
5	0	0		18	5715.303734	2.286121493
6	0	0		18	5697.303734	2.278921493
7	0	0		18	5679.303734	2.271721493
8	28	328.4959	1200	0	4807.799636	1.923119854
9	0	0		0	4807.799636	1.923119854
10	0	0		0	4807.799636	1.923119854
11	0	0		0	4807.799636	1.923119854
12	0	0		18	4789.799636	1.915919854
13	0	0		18	4771.799636	1.908719854
14	0	0		18	4753.799636	1.901519854
15	5	58.659983		0	4812.459618	1.924983847
16	0	0		0	4812.459618	1.924983847
17	0	0		0	4812.459618	1.924983847
18	0	0		0	4812.459618	1.924983847
19	0	0		18	4794.459618	1.917783847
20	0	0		18	4776.459618	1.910583847
21	0	0		18	4758.459618	1.903383847
22	46	539.67184		0	5298.131457	2.119252583
23	0	0		0	5298.131457	2.119252583
24	0	0		0	5298.131457	2.119252583
25	80	938.55972	1200	0	5036.691177	2.014676471
26	0	0		0	5036.691177	2.014676471
27	0	0		0	5036.691177	2.014676471
28	0	0		0	5036.691177	2.014676471
29	0	0		18	5018.691177	2.007476471
30	0	0		18	5000.691177	2.000276471
31	0	0		18	4982.691177	1.993076471
Juni				216		
1	0	0		18	4964.691177	1.985876471
2	0	0		18	4946.691177	1.978676471
3	0	0		18	4928.691177	1.971476471
4	0	0		18	4910.691177	1.964276471
5	20	234.63993		0	5145.331107	2.058132443
6	0	0		0	5145.331107	2.058132443
7	0	0		0	5145.331107	2.058132443
8	0	0		0	5145.331107	2.058132443
9	0	0		18	5127.331107	2.050932443
10	0	0		18	5109.331107	2.043732443
11	0	0		18	5091.331107	2.036532443
12	0	0		18	5073.331107	2.029332443
13	5	58.659983		0	5131.99109	2.052796436
14	0	0		0	5131.99109	2.052796436
15	0	0		0	5131.99109	2.052796436
16	0	0		0	5131.99109	2.052796436
17	0	0		18	5113.99109	2.045596436
18	0	0		0	5113.99109	2.045596436
19	0	0		18	5095.99109	2.038396436
20	0	0		18	5077.99109	2.031196436
21	0	0		18	5059.99109	2.023996436
22	0	0		18	5041.99109	2.016796436
23	0	0		18	5023.99109	2.009596436
24	0	0		18	5005.99109	2.002396436
25	0	0		18	4987.99109	1.995196436
26	0	0		18	4969.99109	1.987996436
27	0	0		18	4951.99109	1.980796436
28	0	0		18	4933.99109	1.973596436
29	0	0		18	4915.99109	1.966396436
30	0	0		18	4897.99109	1.959196436
Juli				378		
1	0	0		18	4879.99109	1.951996436
2	0	0		18	4861.99109	1.944796436
3	0	0		18	4843.99109	1.937596436
4	0	0		18	4825.99109	1.930396436
5	0	0		18	4807.99109	1.923196436
6	0	0		18	4789.99109	1.915996436
7	0	0		18	4771.99109	1.908796436
8	0	0		18	4753.99109	1.901596436
9	0	0		18	4735.99109	1.894396436
10	0	0		18	4717.99109	1.887196436

11	0	0		18	4699.99109	1.879996436
12	0	0		18	4681.99109	1.872796436
13	0	0		18	4663.99109	1.865596436
14	0	0		18	4645.99109	1.858396436
15	0	0		18	4627.99109	1.851196436
16	0	0		18	4609.99109	1.843996436
17	0	0		18	4591.99109	1.836796436
18	0	0		18	4573.99109	1.829596436
19	0	0		18	4555.99109	1.822396436
20	0	0		18	4537.99109	1.815196436
21	0	0		18	4519.99109	1.807996436
22	0	0		18	4501.99109	1.800796436
23	0	0		18	4483.99109	1.793596436
24	0	0		18	4465.99109	1.786396436
25	0	0		18	4447.99109	1.779196436
26	0	0		18	4429.99109	1.771996436
27	0	0		18	4411.99109	1.764796436
28	0	0		18	4393.99109	1.757596436
29	0	0		18	4375.99109	1.750396436
30	0	0		18	4357.99109	1.743196436
31	0	0		18	4339.99109	1.735996436
Agustus				558		
1	0	0		18	4321.99109	1.728796436
2	0	0		18	4303.99109	1.721596436
3	0	0		18	4285.99109	1.714396436
4	0	0		18	4267.99109	1.707196436
5	0	0		18	4249.99109	1.699996436
6	0	0		18	4231.99109	1.692796436
7	0	0		18	4213.99109	1.685596436
8	0	0		18	4195.99109	1.678396436
9	0	0		18	4177.99109	1.671196436
10	0	0		18	4159.99109	1.663996436
11	0	0		18	4141.99109	1.656796436
12	0	0		18	4123.99109	1.649596436
13	0	0		18	4105.99109	1.642396436
14	0	0		18	4087.99109	1.635196436
15	0	0		18	4069.99109	1.627996436
16	0	0		18	4051.99109	1.620796436
17	0	0		18	4033.99109	1.613596436
18	0	0		18	4015.99109	1.606396436
19	0	0		18	3997.99109	1.599196436
20	0	0		18	3979.99109	1.591996436
21	0	0		18	3961.99109	1.584796436
22	0	0		18	3943.99109	1.577596436
23	0	0		18	3925.99109	1.570396436
24	0	0		18	3907.99109	1.563196436
25	0	0		18	3889.99109	1.555996436
26	0	0		18	3871.99109	1.548796436
27	0	0		18	3853.99109	1.541596436
28	0	0		18	3835.99109	1.534396436
29	0	0		18	3817.99109	1.527196436
30	0	0		18	3799.99109	1.519996436
31	0	0		18	3781.99109	1.512796436

September				558		
1	0	0		18	3763.99109	1.505596436
2	0	0		18	3745.99109	1.498396436
3	0	0		18	3727.99109	1.491196436
4	0	0		18	3709.99109	1.483996436
5	0	0		18	3691.99109	1.476796436
6	0	0		18	3673.99109	1.469596436
7	0	0		18	3655.99109	1.462396436
8	0	0		18	3637.99109	1.455196436
9	0	0		18	3619.99109	1.447996436
10	0	0		18	3601.99109	1.440796436
11	0	0		18	3583.99109	1.433596436
12	0	0		18	3565.99109	1.426396436
13	0	0		18	3547.99109	1.419196436
14	0	0		18	3529.99109	1.411996436
15	0	0		18	3511.99109	1.404796436
16	0	0		18	3493.99109	1.397596436
17	0	0		18	3475.99109	1.390396436
18	0	0		18	3457.99109	1.383196436
19	0	0		18	3439.99109	1.375996436
20	0	0		18	3421.99109	1.368796436
21	0	0		18	3403.99109	1.361596436
22	0	0		18	3385.99109	1.354396436
23	0	0		18	3367.99109	1.347196436
24	0	0		18	3349.99109	1.339996436
25	0	0		18	3331.99109	1.332796436
26	0	0		18	3313.99109	1.325596436
27	0	0		18	3295.99109	1.318396436
28	0	0		18	3277.99109	1.311196436
29	0	0		18	3259.99109	1.303996436
30	0	0		18	3241.99109	1.296796436
Oktober				540		
1	0	0		18	3223.99109	1.289596436
2	0	0		18	3205.99109	1.282396436
3	0	0		18	3187.99109	1.275196436
4	0	0		18	3169.99109	1.267996436
5	0	0		18	3151.99109	1.260796436
6	0	0		18	3133.99109	1.253596436
7	0	0		18	3115.99109	1.246396436
8	0	0		18	3097.99109	1.239196436
9	0	0		18	3079.99109	1.231996436
10	0	0		18	3061.99109	1.224796436
11	0	0		18	3043.99109	1.217596436
12	0	0		18	3025.99109	1.210396436
13	0	0		18	3007.99109	1.203196436
14	0	0		18	2989.99109	1.195996436
15	0	0		18	2971.99109	1.188796436
16	0	0		18	2953.99109	1.181596436
17	0	0		18	2935.99109	1.174396436
18	3	35.19599		18	2953.187079	1.181274832
19	0	0		18	2935.187079	1.174074832
20	6	70.391979		18	2987.579058	1.195031623
21	0	0		18	2969.579058	1.187831623
22	0	0		18	2951.579058	1.180631623
23	0	0		18	2933.579058	1.173431623
24	0	0		18	2915.579058	1.166231623
25	0	0		18	2897.579058	1.159031623
26	14	164.24795		0	3061.827009	1.224730804
27	0	0		0	3061.827009	1.224730804
28	0	0		0	3061.827009	1.224730804
29	20	234.63993		0	3296.466939	1.318586776
30	29	340.2279		0	3636.694838	1.454677935
31	6	70.391979		0	3707.086817	1.482834727
November				450		
1	12	140.78396		0	3847.870775	1.53914831
2	7	82.123976		0	3929.99475	1.5719979
3	0	0		0	3929.99475	1.5719979
4	0	0		0	3929.99475	1.5719979
5	0	0		0	3929.99475	1.5719979
6	30	351.9599		0	4281.954645	1.712781858
7	0	0		0	4281.954645	1.712781858
8	2	23.463993		0	4305.418638	1.722167455
9	5	58.659983		0	4364.078621	1.745631448
10	13	152.51595		0	4516.594575	1.80663783

11	0	0		0	4516.594575	1.80663783
12	0	0		0	4516.594575	1.80663783
13	20	234.63993		0	4751.234505	1.900493802
14	0	0		0	4751.234505	1.900493802
15	0	0		0	4751.234505	1.900493802
16	0	0		0	4751.234505	1.900493802
17	0	0		18	4733.234505	1.893293802
18	4	46.927986		0	4780.162491	1.912064996
19	0	0		0	4780.162491	1.912064996
20	0	0		0	4780.162491	1.912064996
21	10	117.31997		0	4897.482456	1.958992982
22	0	0		0	4897.482456	1.958992982
23	0	0		0	4897.482456	1.958992982
24	2	23.463993		0	4920.946449	1.96837858
25	0	0		0	4920.946449	1.96837858
26	0	0		0	4920.946449	1.96837858
27	20	234.63993		0	5155.586379	2.062234552
28	0	0		0	5155.586379	2.062234552
29	0	0		0	5155.586379	2.062234552
30	0	0		0	5155.586379	2.062234552
Desenber				18		
1	0	0		18	5137.586379	2.055034552
2	0	0		18	5119.586379	2.047834552
3	0	0		18	5101.586379	2.040634552
4	0	0		18	5083.586379	2.033434552
5	0	0		18	5065.586379	2.026234552
6	0	0		18	5047.586379	2.019034552
7	0	0		18	5029.586379	2.011834552
8	0	0		18	5011.586379	2.004634552
9	0	0		18	4993.586379	1.997434552
10	0	0		18	4975.586379	1.990234552
11	0	0		18	4957.586379	1.983034552
12	21	246.37193		0	5203.958306	2.081583322
13	12	140.78396		0	5344.742264	2.137896905
14	19	222.90793		0	5567.650197	2.227060079
15	0	0		0	5567.650197	2.227060079
16	0	0		0	5567.650197	2.227060079
17	35	410.61988		0	5978.270075	2.39130803
18	80	938.55972	1200	0	5716.829795	2.286731918
19	75	879.89974	1200	0	5396.729532	2.158691813
20	12	140.78396		0	5537.51349	2.215005396
21	10	117.31997		0	5654.833455	2.261933382
22	9	105.58797		0	5760.421424	2.304168569
23	0	0		0	5760.421424	2.304168569
24	0	0		0	5760.421424	2.304168569
25	0	0		0	5760.421424	2.304168569
26	0	0		18	5742.421424	2.296968569
27	32	375.42389		0	6117.845312	2.447138125
28	0	0		0	6117.845312	2.447138125
29	0	0		0	6117.845312	2.447138125
30	0	0		0	6117.845312	2.447138125
31	0	0		18	6099.845312	2.439938125

**TAMAN ALUMNI ITS**

<b>TANGGAL</b>	<b>R (mm)</b>					
<b>Januari</b>	<b>R (mm)</b>	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	72	759.71538	1000	0	3744.266639	1.24808888
2	49	517.0285225	1000	0	3261.295161	1.087098387
3	0	0		0	3261.295161	1.087098387
4	0	0		0	3261.295161	1.087098387
5	33	348.2028825		0	3609.498044	1.203166015
6	24	253.23846		0	3862.736504	1.287578835
7	0	0		0	3862.736504	1.287578835
8	0	0		0	3862.736504	1.287578835
9	0	0		0	3862.736504	1.287578835
10	32	337.65128	1000	0	3200.387784	1.066795928
11	0	0		0	3200.387784	1.066795928
12	6	63.309615		0	3263.697399	1.087899133
13	0	0		0	3263.697399	1.087899133
14	0	0		0	3263.697399	1.087899133
15	52	548.68333		0	3812.380729	1.270793576
16	61	643.6477525	1000	0	3456.028481	1.152009494
17	20	211.03205		0	3667.060531	1.22235351
18	16	168.82564		0	3835.886171	1.278628724
19	0	0		0	3835.886171	1.278628724
20	55	580.3381375	1000	0	3416.224309	1.138741436
21	0	0		0	3416.224309	1.138741436
22	7	73.8612175		0	3490.085526	1.163361842
23	6	63.309615		0	3553.395141	1.184465047
24	4	42.20641		0	3595.601551	1.19853385
25	9	94.9644225	1000	0	2690.565974	0.896855325
26	0	0		0	2690.565974	0.896855325
27	0	0		0	2690.565974	0.896855325
28	0	0		0	2690.565974	0.896855325
29	0	0		18	2672.565974	0.890855325
30	85	896.8862125		0	3569.452186	1.189817395
31	20	211.03205		0	3780.484236	1.260161412
<b>Februari</b>						
1	11	116.0676275		0	3896.551864	1.298850621
2	10	105.516025	1000	0	3002.067889	1.000689296
3	24	253.23846		0	3255.306349	1.085102116
4	10	105.516025		0	3360.822374	1.120274125
5	0	0		0	3360.822374	1.120274125
6	0	0		0	3360.822374	1.120274125
7	9	94.9644225		0	3455.786796	1.151928932
8	67	706.9573675	1000	0	3162.744164	1.054248055
9	5	52.7580125	1000	0	2215.502176	0.738500725
10	13	137.1708325		0	2352.673009	0.784224336
11	27	284.8932675		0	2637.566276	0.879188759
12	21	221.5836525		0	2859.149929	0.953049976
13	9	94.9644225		0	2954.114351	0.984704784
14	7	73.8612175		0	3027.975569	1.00932519
15	10	105.516025	1000	0	2133.491594	0.711163865
16	55	580.3381375	1000	0	1713.829731	0.571276577
17	0	0		0	1713.829731	0.571276577
18	3	31.6548075		0	1745.484539	0.58182818
19	0	0		0	1745.484539	0.58182818
20	3	31.6548075		0	1777.139346	0.592379782
21	4	42.20641		0	1819.345756	0.606448585
22	0	0		0	1819.345756	0.606448585
23	0	0		0	1819.345756	0.606448585
24	0	0		0	1819.345756	0.606448585
25	38	400.960895		0	2220.306651	0.740102217
26	19	200.4804475		0	2420.787099	0.806929033
27	0	0		0	2420.787099	0.806929033
28	23	242.6868575		0	2663.473956	0.887824652
<b>Maret</b>						
1	15	158.2740375		0	2821.747994	0.940582665
2	0	0		0	2821.747994	0.940582665
3	0	0		0	2821.747994	0.940582665
4	0	0		0	2821.747994	0.940582665
5	0	0		18	2803.747994	0.934582665
6	25	263.7900625	1000	0	2067.538056	0.689179352
7	12	126.61923		0	2194.157286	0.731385762
8	0	0		0	2194.157286	0.731385762
9	0	0		0	2194.157286	0.731385762
10	0	0		0	2194.157286	0.731385762

11	0	0		18	2176.157286	0.725385762
12	0	0		0	2176.157286	0.725385762
13	19	200.4804475		0	2376.637734	0.792212578
14	11	116.0676275		0	2492.705361	0.830901787
15	7	73.8612175		0	2566.566579	0.855522193
16	5	52.7580125		0	2619.324591	0.873108197
17	14	147.722435		0	2767.047026	0.922349009
18	20	211.03205		0	2978.079076	0.992693025
19	0	0		0	2978.079076	0.992693025
20	21	221.5836525		0	3199.662729	1.066554243
21	0	0		0	3199.662729	1.066554243
22	0	0		0	3199.662729	1.066554243
23	0	0		0	3199.662729	1.066554243
24	7	73.8612175		0	3273.523946	1.091174649
25	0	0		0	3273.523946	1.091174649
26	5	52.7580125		0	3326.281959	1.108760653
27	35	369.3060875		0	3695.588046	1.231862682
28	0	0		0	3695.588046	1.231862682
29	0	0		0	3695.588046	1.231862682
30	0	0		0	3695.588046	1.231862682
31	0	0		18	3677.588046	1.225862682
April						
1	0	0		0	3677.588046	1.225862682
2	8	84.41282		0	3762.000866	1.254000289
3	0	0		0	3762.000866	1.254000289
4	0	0		0	3762.000866	1.254000289
5	19	200.4804475		0	3962.481314	1.320827105
6	0	0		0	3962.481314	1.320827105
7	0	0		0	3962.481314	1.320827105
8	30	316.548075		0	4279.029389	1.42634313
9	0	0		0	4279.029389	1.42634313
10	0	0		0	4279.029389	1.42634313
11	0	0		0	4279.029389	1.42634313
12	0	0		18	4261.029389	1.42034313
13	0	0		18	4243.029389	1.41434313
14	0	0		18	4225.029389	1.40834313
15	22	232.135255		0	4457.164644	1.485721548
16	0	0		0	4457.164644	1.485721548
17	0	0		0	4457.164644	1.485721548
18	0	0		0	4457.164644	1.485721548
19	0	0		18	4439.164644	1.479721548
20	0	0		18	4421.164644	1.473721548
21	19	200.4804475		0	4621.645091	1.540548364
22	0	0		0	4621.645091	1.540548364
23	0	0		0	4621.645091	1.540548364
24	0	0		0	4621.645091	1.540548364
25	0	0		18	4603.645091	1.534548364
26	0	0		18	4585.645091	1.528548364
27	4	42.20641		0	4627.851501	1.542617167
28	0	0		0	4627.851501	1.542617167
29	0	0		0	4627.851501	1.542617167
30	0	0		0	4627.851501	1.542617167

Mei						
1	0	0		18	4609.851501	1.536617167
2	0	0		18	4591.851501	1.530617167
3	9	94.9644225		0	4686.815924	1.562271975
4	0	0		0	4686.815924	1.562271975
5	0	0		0	4686.815924	1.562271975
6	0	0		0	4686.815924	1.562271975
7	0	0		18	4668.815924	1.556271975
8	0	0		18	4650.815924	1.550271975
9	0	0		18	4632.815924	1.544271975
10	0	0		18	4614.815924	1.538271975
11	0	0		18	4596.815924	1.532271975
12	0	0		18	4578.815924	1.526271975
13	0	0		18	4560.815924	1.520271975
14	24	253.23846		0	4814.054384	1.604684795
15	17	179.3772425		0	4993.431626	1.664477209
16	0	0		0	4993.431626	1.664477209
17	0	0		0	4993.431626	1.664477209
18	0	0		0	4993.431626	1.664477209
19	0	0		18	4975.431626	1.658477209
20	0	0		18	4957.431626	1.652477209
21	0	0		18	4939.431626	1.646477209
22	0	0		18	4921.431626	1.640477209
23	0	0		18	4903.431626	1.634477209
24	0	0		18	4885.431626	1.628477209
25	0	0		18	4867.431626	1.622477209
26	0	0		18	4849.431626	1.616477209
27	0	0		18	4831.431626	1.610477209
28	0	0		18	4813.431626	1.604477209
29	0	0		18	4795.431626	1.598477209
30	0	0		18	4777.431626	1.592477209
31	0	0		18	4759.431626	1.586477209
Juni						
1	0	0		18	4741.431626	1.580477209
2	0	0		18	4723.431626	1.574477209
3	0	0		18	4705.431626	1.568477209
4	0	0		18	4687.431626	1.562477209
5	0	0		18	4669.431626	1.556477209
6	0	0		18	4651.431626	1.550477209
7	0	0		18	4633.431626	1.544477209
8	0	0		18	4615.431626	1.538477209
9	0	0		18	4597.431626	1.532477209
10	0	0		18	4579.431626	1.526477209
11	0	0		18	4561.431626	1.520477209
12	0	0		18	4543.431626	1.514477209
13	0	0		18	4525.431626	1.508477209
14	0	0		18	4507.431626	1.502477209
15	0	0		18	4489.431626	1.496477209
16	0	0		18	4471.431626	1.490477209
17	0	0		18	4453.431626	1.484477209
18	0	0		18	4435.431626	1.478477209
19	0	0		18	4417.431626	1.472477209
20	0	0		18	4399.431626	1.466477209
21	0	0		18	4381.431626	1.460477209
22	0	0		18	4363.431626	1.454477209
23	0	0		18	4345.431626	1.448477209
24	0	0		18	4327.431626	1.442477209
25	0	0		18	4309.431626	1.436477209
26	0	0		18	4291.431626	1.430477209
27	0	0		18	4273.431626	1.424477209
28	0	0		18	4255.431626	1.418477209
29	0	0		18	4237.431626	1.412477209
30	0	0		18	4219.431626	1.406477209
Juli						
1	0	0		18	4201.431626	1.400477209
2	0	0		18	4183.431626	1.394477209
3	0	0		18	4165.431626	1.388477209
4	0	0		18	4147.431626	1.382477209
5	0	0		18	4129.431626	1.376477209
6	0	0		18	4111.431626	1.370477209
7	0	0		18	4093.431626	1.364477209
8	0	0		18	4075.431626	1.358477209
9	0	0		18	4057.431626	1.352477209
10	0	0		18	4039.431626	1.346477209



11	0	0		18	4021.431626	1.340477209
12	0	0		18	4003.431626	1.334477209
13	0	0		18	3985.431626	1.328477209
14	0	0		18	3967.431626	1.322477209
15	0	0		18	3949.431626	1.316477209
16	0	0		18	3931.431626	1.310477209
17	0	0		18	3913.431626	1.304477209
18	0	0		18	3895.431626	1.298477209
19	0	0		18	3877.431626	1.292477209
20	0	0		18	3859.431626	1.286477209
21	0	0		18	3841.431626	1.280477209
22	0	0		18	3823.431626	1.274477209
23	0	0		18	3805.431626	1.268477209
24	0	0		18	3787.431626	1.262477209
25	0	0		18	3769.431626	1.256477209
26	0	0		18	3751.431626	1.250477209
27	0	0		18	3733.431626	1.244477209
28	0	0		18	3715.431626	1.238477209
29	0	0		18	3697.431626	1.232477209
30	0	0		18	3679.431626	1.226477209
31	0	0		18	3661.431626	1.220477209
Agustus						
1	0	0		18	3643.431626	1.214477209
2	0	0		18	3625.431626	1.208477209
3	0	0		18	3607.431626	1.202477209
4	0	0		18	3589.431626	1.196477209
5	0	0		18	3571.431626	1.190477209
6	0	0		18	3553.431626	1.184477209
7	0	0		18	3535.431626	1.178477209
8	0	0		18	3517.431626	1.172477209
9	0	0		18	3499.431626	1.166477209
10	0	0		18	3481.431626	1.160477209
11	0	0		18	3463.431626	1.154477209
12	0	0		18	3445.431626	1.148477209
13	0	0		18	3427.431626	1.142477209
14	0	0		18	3409.431626	1.136477209
15	0	0		18	3391.431626	1.130477209
16	0	0		18	3373.431626	1.124477209
17	0	0		18	3355.431626	1.118477209
18	0	0		18	3337.431626	1.112477209
19	0	0		18	3319.431626	1.106477209
20	0	0		18	3301.431626	1.100477209
21	0	0		18	3283.431626	1.094477209
22	0	0		18	3265.431626	1.088477209
23	0	0		18	3247.431626	1.082477209
24	0	0		18	3229.431626	1.076477209
25	0	0		18	3211.431626	1.070477209
26	0	0		18	3193.431626	1.064477209
27	0	0		18	3175.431626	1.058477209
28	0	0		18	3157.431626	1.052477209
29	0	0		18	3139.431626	1.046477209
30	0	0		18	3121.431626	1.040477209
31	0	0		18	3103.431626	1.034477209

September						
1	0	0		18	3085.431626	1.028477209
2	0	0		18	3067.431626	1.022477209
3	0	0		18	3049.431626	1.016477209
4	0	0		18	3031.431626	1.010477209
5	0	0		18	3013.431626	1.004477209
6	0	0		18	2995.431626	0.998477209
7	0	0		18	2977.431626	0.992477209
8	0	0		18	2959.431626	0.986477209
9	0	0		18	2941.431626	0.980477209
10	0	0		18	2923.431626	0.974477209
11	0	0		18	2905.431626	0.968477209
12	0	0		18	2887.431626	0.962477209
13	0	0		18	2869.431626	0.956477209
14	0	0		18	2851.431626	0.950477209
15	0	0		18	2833.431626	0.944477209
16	0	0		18	2815.431626	0.938477209
17	0	0		18	2797.431626	0.932477209
18	0	0		18	2779.431626	0.926477209
19	0	0		18	2761.431626	0.920477209
20	0	0		18	2743.431626	0.914477209
21	0	0		18	2725.431626	0.908477209
22	0	0		18	2707.431626	0.902477209
23	0	0		18	2689.431626	0.896477209
24	0	0		18	2671.431626	0.890477209
25	0	0		18	2653.431626	0.884477209
26	0	0		18	2635.431626	0.878477209
27	0	0		18	2617.431626	0.872477209
28	0	0		18	2599.431626	0.866477209
29	0	0		18	2581.431626	0.860477209
30	0	0		18	2563.431626	0.854477209
Oktober						
1	0	0		18	2545.431626	0.848477209
2	0	0		18	2527.431626	0.842477209
3	0	0		18	2509.431626	0.836477209
4	0	0		18	2491.431626	0.830477209
5	0	0		18	2473.431626	0.824477209
6	0	0		18	2455.431626	0.818477209
7	0	0		18	2437.431626	0.812477209
8	0	0		18	2419.431626	0.806477209
9	0	0		18	2401.431626	0.800477209
10	0	0		18	2383.431626	0.794477209
11	0	0		18	2365.431626	0.788477209
12	4	42.20641		18	2389.638036	0.796546012
13	0	0		18	2371.638036	0.790546012
14	0	0		18	2353.638036	0.784546012
15	0	0		18	2335.638036	0.778546012
16	0	0		18	2317.638036	0.772546012
17	0	0		18	2299.638036	0.766546012
18	0	0		18	2281.638036	0.760546012
19	0	0		18	2263.638036	0.754546012
20	0	0		18	2245.638036	0.748546012
21	0	0		18	2227.638036	0.742546012
22	0	0		18	2209.638036	0.736546012
23	0	0		18	2191.638036	0.730546012
24	0	0		18	2173.638036	0.724546012
25	0	0		18	2155.638036	0.718546012
26	0	0		18	2137.638036	0.712546012
27	0	0		18	2119.638036	0.706546012
28	0	0		18	2101.638036	0.700546012
29	0	0		18	2083.638036	0.694546012
30	0	0		18	2065.638036	0.688546012
31	0	0		18	2047.638036	0.682546012
November						
1	0	0		18	2029.638036	0.676546012
2	0	0		18	2011.638036	0.670546012
3	0	0		18	1993.638036	0.664546012
4	0	0		18	1975.638036	0.658546012
5	0	0		18	1957.638036	0.652546012
6	0	0		18	1939.638036	0.646546012
7	0	0		18	1921.638036	0.640546012
8	10	105.516025		0	2027.154061	0.67571802
9	0	0		0	2027.154061	0.67571802
10	0	0		0	2027.154061	0.67571802

11	0	0		0	2027.154061	0.67571802
12	0	0		18	2009.154061	0.66971802
13	0	0		18	1991.154061	0.66371802
14	0	0		18	1973.154061	0.65771802
15	0	0		18	1955.154061	0.65171802
16	0	0		18	1937.154061	0.64571802
17	0	0		18	1919.154061	0.63971802
18	13	137.1708325		0	2056.324894	0.685441631
19	5	52.7580125		0	2109.082906	0.703027635
20	47	495.9253175		0	2605.008224	0.868336075
21	0	0		0	2605.008224	0.868336075
22	0	0		0	2605.008224	0.868336075
23	0	0		0	2605.008224	0.868336075
24	0	0		18	2587.008224	0.862336075
25	0	0		18	2569.008224	0.856336075
26	0	0		18	2551.008224	0.850336075
27	0	0		18	2533.008224	0.844336075
28	0	0		18	2515.008224	0.838336075
29	0	0		18	2497.008224	0.832336075
30	0	0		18	2479.008224	0.826336075
Desember						
1	47	495.9253175		0	2974.933541	0.991644514
2	31	327.0996775		0	3302.033219	1.10067774
3	24	253.23846		0	3555.271679	1.18509056
4	0	0		0	3555.271679	1.18509056
5	40	422.0641		0	3977.335779	1.325778593
6	0	0		0	3977.335779	1.325778593
7	0	0		0	3977.335779	1.325778593
8	0	0		0	3977.335779	1.325778593
9	0	0		18	3959.335779	1.319778593
10	21	221.5836525		0	4180.919431	1.39363981
11	22	232.135255		0	4413.054686	1.471018229
12	0	0		0	4413.054686	1.471018229
13	0	0		0	4413.054686	1.471018229
14	0	0		0	4413.054686	1.471018229
15	28	295.44487		0	4708.499556	1.569499852
16	0	0		0	4708.499556	1.569499852
17	11	116.0676275		0	4824.567184	1.608189061
18	10	105.516025		0	4930.083209	1.64336107
19	0	0		0	4930.083209	1.64336107
20	10	105.516025		0	5035.599234	1.678533078
21	18	189.928845		0	5225.528079	1.741842693
22	15	158.2740375		0	5383.802116	1.794600705
23	16	168.82564		0	5552.627756	1.850875919
24	0	0		0	5552.627756	1.850875919
25	0	0		0	5552.627756	1.850875919
26	26	274.341665		0	5826.969421	1.94232314
27	64	675.30256	1000	0	5502.271981	1.83409066
28	30	316.548075		0	5818.820056	1.939606685
29	20	211.03205		0	6029.852106	2.009950702
30	45	474.8221125	1000	0	5504.674219	1.834891406
31	48	506.47692		0	6011.151139	2.003717046

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O	Vol O(m3)	DS(m3)	tinggi air (m)
1	20	234.63993		0	6334.485242	2.533794097
2	0	0		0	6334.485242	2.533794097
3	0	0		0	6334.485242	2.533794097
4	0	0		0	6334.485242	2.533794097
5	0	0		18	6316.485242	2.526594097
6	0	0		18	6298.485242	2.519394097
7	0	0		18	6280.485242	2.512194097
8	0	0		18	6262.485242	2.504994097
9	10	117.319965		0	6379.805207	2.551922083
10	0	0		0	6379.805207	2.551922083
11	0	0		0	6379.805207	2.551922083
12	0	0		0	6379.805207	2.551922083
13	0	0		18	6361.805207	2.544722083
14	0	0		18	6343.805207	2.537522083
15	46	539.671839	1200	0	5683.477046	2.273390818
16	0	0		0	5683.477046	2.273390818
17	13	152.5159545		0	5835.993	2.3343972
18	0	0		0	5835.993	2.3343972
19	0	0		0	5835.993	2.3343972
20	0	0		0	5835.993	2.3343972
21	35	410.6198775		0	6246.612878	2.498645151
22	49	574.8678285	1200	0	5621.480706	2.248592282
23	4	46.927986		0	5668.408692	2.267363477
24	0	0		0	5668.408692	2.267363477
25	3	35.1959895		0	5703.604682	2.281441873
26	6	70.391979		0	5773.996661	2.309598664
27	0	0		0	5773.996661	2.309598664
28	0	0		0	5773.996661	2.309598664
29	25	293.2999125		0	6067.296573	2.426918629
30	0	0		0	6067.296573	2.426918629
31	12	140.783958		0	6208.080531	2.483232212
Februari				108		
1	0	0		0	6208.080531	2.483232212
2	45	527.9398425		0	6736.020374	2.694408149
3	34	398.887881	1200	0	5934.908255	2.373963302
4	0	0		0	5934.908255	2.373963302
5	0	0		0	5934.908255	2.373963302
6	0	0		0	5934.908255	2.373963302
7	50	586.599825		0	6521.50808	2.608603232
8	0	0		0	6521.50808	2.608603232
9	5	58.6599825		0	6580.168062	2.632067225
10	0	0		0	6580.168062	2.632067225
11	0	0		0	6580.168062	2.632067225
12	17	199.4439405		0	6779.612003	2.711844801
13	0	0		0	6779.612003	2.711844801
14	0	0		0	6779.612003	2.711844801
15	0	0		0	6779.612003	2.711844801
16	0	0		18	6761.612003	2.704644801
17	0	0		18	6743.612003	2.697444801
18	0	0		18	6725.612003	2.690244801
19	17	199.4439405		0	6925.055943	2.770022377
20	3	35.1959895		0	6960.251933	2.784100773
21	5	58.6599825		0	7018.911915	2.807564766
22	0	0		0	7018.911915	2.807564766
23	0	0		0	7018.911915	2.807564766
24	0	0		0	7018.911915	2.807564766
25	49	574.8678285	1200	0	6393.779744	2.557511897
26	0	0		0	6393.779744	2.557511897
27	5	58.6599825		0	6452.439726	2.58097589
28	56	656.991804		0	7109.43153	2.843772612
Maret				54		
1	51	598.3318215	1200	0	6507.763352	2.603105341
2	82	962.023713		0	7469.787065	2.987914826
3	6	70.391979	1200	0	6340.179044	2.536071617
4	40	469.27986		0	6809.458904	2.723783561
5	0	0		0	6809.458904	2.723783561
6	7	82.1239755		0	6891.582879	2.756633152
7	12	140.783958		0	7032.366837	2.812946735
8	0	0		0	7032.366837	2.812946735
9	0	0		0	7032.366837	2.812946735

10	8	93.855972		0	7126.222809	2.850489124
11	0	0		0	7126.222809	2.850489124
12	8	93.855972		0	7220.078781	2.888031512
13	0	0		0	7220.078781	2.888031512
14	0	0		0	7220.078781	2.888031512
15	23	269.8359195		0	7489.914701	2.99596588
16	0	0		0	7489.914701	2.99596588
17	0	0		0	7489.914701	2.99596588
18	0	0		0	7489.914701	2.99596588
19	12	140.783958	1200	0	6430.698659	2.572279463
20	33	387.1558845	1200	0	5617.854543	2.247141817
21	0	0		0	5617.854543	2.247141817
22	36	422.351874		0	6040.206417	2.416082567
23	24	281.567916		0	6321.774333	2.528709733
24	79	926.8277235	1200	0	6048.602057	2.419440823
25	0	0		0	6048.602057	2.419440823
26	0	0		0	6048.602057	2.419440823
27	6	70.391979		0	6118.994036	2.447597614
28	26	305.031909		0	6424.025944	2.569610378
29	0	0		0	6424.025944	2.569610378
30	0	0		0	6424.025944	2.569610378
31	0	0		0	6424.025944	2.569610378
April				0		
1	0	0		18	6406.025944	2.562410378
2	86	1008.951699	1200	0	6214.977644	2.485991057
3	0	0		0	6214.977644	2.485991057
4	30	351.959895		0	6566.937539	2.626775015
5	0	0		0	6566.937539	2.626775015
6	0	0		0	6566.937539	2.626775015
7	39	457.5478635		0	7024.485402	2.809794161
8	4	46.927986		0	7071.413388	2.828565355
9	0	0		0	7071.413388	2.828565355
10	0	0		0	7071.413388	2.828565355
11	0	0		0	7071.413388	2.828565355
12	0	0		18	7053.413388	2.821365355
13	0	0		18	7035.413388	2.814165355
14	0	0		18	7017.413388	2.806965355
15	40	469.27986		0	7486.693248	2.994677299
16	70	821.239755	1200	0	7107.933003	2.843173201
17	89	1044.147689	1200	0	6952.080692	2.780832277
18	0	0		0	6952.080692	2.780832277
19	0	0		0	6952.080692	2.780832277
20	0	0		0	6952.080692	2.780832277
21	0	0		18	6934.080692	2.773632277
22	0	0		18	6916.080692	2.766432277
23	0	0		18	6898.080692	2.759232277
24	60	703.91979	1200	0	6402.000482	2.560800193
25	2	23.463993		0	6425.464475	2.57018579
26	0	0		0	6425.464475	2.57018579
27	0	0		0	6425.464475	2.57018579
28	0	0		0	6425.464475	2.57018579
29	0	0		18	6407.464475	2.56298579
30	0	0		18	6389.464475	2.55578579

Mei				162		
1	0	0		18	6371.464475	2.54858579
2	0	0		18	6353.464475	2.54138579
3	6	70.391979		0	6423.856454	2.569542581
4	0	0		0	6423.856454	2.569542581
5	0	0		0	6423.856454	2.569542581
6	0	0		0	6423.856454	2.569542581
7	0	0		18	6405.856454	2.562342581
8	0	0		18	6387.856454	2.555142581
9	0	0		18	6369.856454	2.547942581
10	0	0		18	6351.856454	2.540742581
11	0	0		18	6333.856454	2.533542581
12	0	0		18	6315.856454	2.526342581
13	0	0		18	6297.856454	2.519142581
14	0	0		18	6279.856454	2.511942581
15	0	0		18	6261.856454	2.504742581
16	0	0		18	6243.856454	2.497542581
17	0	0		18	6225.856454	2.490342581
18	0	0		18	6207.856454	2.483142581
19	0	0		18	6189.856454	2.475942581
20	0	0		18	6171.856454	2.468742581
21	0	0		18	6153.856454	2.461542581
22	0	0		18	6135.856454	2.454342581
23	0	0		18	6117.856454	2.447142581
24	0	0		18	6099.856454	2.439942581
25	0	0		18	6081.856454	2.432742581
26	23	269.8359195		0	6351.692373	2.540676949
27	0	0		0	6351.692373	2.540676949
28	0	0		0	6351.692373	2.540676949
29	0	0		0	6351.692373	2.540676949
30	0	0		18	6333.692373	2.533476949
31	0	0		18	6315.692373	2.526276949
Juni				414		
1	0	0		18	6297.692373	2.519076949
2	0	0		18	6279.692373	2.511876949
3	0	0		18	6261.692373	2.504676949
4	24	281.567916		0	6543.260289	2.617304116
5	0	0		0	6543.260289	2.617304116
6	0	0		0	6543.260289	2.617304116
7	6	70.391979		0	6613.652268	2.645460907
8	0	0		0	6613.652268	2.645460907
9	0	0		0	6613.652268	2.645460907
10	0	0		0	6613.652268	2.645460907
11	25	293.2999125		0	6906.952181	2.762780872
12	22	258.103923	1200	0	5965.056104	2.386022441
13	0	0		0	5965.056104	2.386022441
14	11	129.0519615		0	6094.108065	2.437643226
15	0	0		0	6094.108065	2.437643226
16	0	0		0	6094.108065	2.437643226
17	0	0		0	6094.108065	2.437643226
18	0	0		18	6076.108065	2.430443226
19	0	0		18	6058.108065	2.423243226
20	0	0		18	6040.108065	2.416043226
21	0	0		18	6022.108065	2.408843226
22	0	0		18	6004.108065	2.401643226
23	0	0		18	5986.108065	2.394443226
24	4	46.927986		0	6033.036051	2.41321442
25	0	0		0	6033.036051	2.41321442
26	0	0		0	6033.036051	2.41321442
27	0	0		0	6033.036051	2.41321442
28	0	0		18	6015.036051	2.40601442
29	0	0		18	5997.036051	2.39881442
30	0	0		18	5979.036051	2.39161442
Juli				216		
1	0	0		18	5961.036051	2.38441442
2	0	0		18	5943.036051	2.37721442
3	0	0		18	5925.036051	2.37001442
4	0	0		18	5907.036051	2.36281442
5	0	0		18	5889.036051	2.35561442
6	0	0		18	5871.036051	2.34841442
7	0	0		18	5853.036051	2.34121442
8	0	0		18	5835.036051	2.33401442
9	0	0		18	5817.036051	2.32681442
10	0	0		18	5799.036051	2.31961442

11	0	0		18	5781.036051	2.31241442
12	22	258.103923		0	6039.139974	2.41565599
13	42	492.743853		0	6531.883827	2.612753531
14	0	0		0	6531.883827	2.612753531
15	0	0		0	6531.883827	2.612753531
16	0	0		0	6531.883827	2.612753531
17	0	0		18	6513.883827	2.605553531
18	0	0		18	6495.883827	2.598353531
19	0	0		18	6477.883827	2.591153531
20	6	70.391979		0	6548.275806	2.619310322
21	0	0		0	6548.275806	2.619310322
22	0	0		0	6548.275806	2.619310322
23	0	0		0	6548.275806	2.619310322
24	0	0		18	6530.275806	2.612110322
25	0	0		18	6512.275806	2.604910322
26	0	0		18	6494.275806	2.597710322
27	0	0		18	6476.275806	2.590510322
28	0	0		18	6458.275806	2.583310322
29	0	0		18	6440.275806	2.576110322
30	0	0		18	6422.275806	2.568910322
31	0	0		18	6404.275806	2.561710322
Agustus				396		
1	0	0		18	6386.275806	2.554510322
2	0	0		18	6368.275806	2.547310322
3	0	0		18	6350.275806	2.540110322
4	0	0		18	6332.275806	2.532910322
5	0	0		18	6314.275806	2.525710322
6	0	0		18	6296.275806	2.518510322
7	0	0		18	6278.275806	2.511310322
8	0	0		18	6260.275806	2.504110322
9	0	0		18	6242.275806	2.496910322
10	0	0		18	6224.275806	2.489710322
11	0	0		18	6206.275806	2.482510322
12	0	0		18	6188.275806	2.475310322
13	0	0		18	6170.275806	2.468110322
14	0	0		18	6152.275806	2.460910322
15	0	0		18	6134.275806	2.453710322
16	0	0		18	6116.275806	2.446510322
17	0	0		18	6098.275806	2.439310322
18	0	0		18	6080.275806	2.432110322
19	0	0		18	6062.275806	2.424910322
20	0	0		18	6044.275806	2.417710322
21	0	0		18	6026.275806	2.410510322
22	0	0		18	6008.275806	2.403310322
23	0	0		18	5990.275806	2.396110322
24	0	0		18	5972.275806	2.388910322
25	0	0		18	5954.275806	2.381710322
26	0	0		18	5936.275806	2.374510322
27	0	0		18	5918.275806	2.367310322
28	0	0		18	5900.275806	2.360110322
29	0	0		18	5882.275806	2.352910322
30	0	0		18	5864.275806	2.345710322
31	0	0		18	5846.275806	2.338510322

September				558		
1	0	0		18	5828.275806	2.331310322
2	0	0		18	5810.275806	2.324110322
3	0	0		18	5792.275806	2.316910322
4	0	0		18	5774.275806	2.309710322
5	0	0		18	5756.275806	2.302510322
6	0	0		18	5738.275806	2.295310322
7	0	0		18	5720.275806	2.288110322
8	0	0		18	5702.275806	2.280910322
9	0	0		18	5684.275806	2.273710322
10	0	0		18	5666.275806	2.266510322
11	0	0		18	5648.275806	2.259310322
12	0	0		18	5630.275806	2.252110322
13	0	0		18	5612.275806	2.244910322
14	0	0		18	5594.275806	2.237710322
15	0	0		18	5576.275806	2.230510322
16	0	0		18	5558.275806	2.223310322
17	0	0		18	5540.275806	2.216110322
18	0	0		18	5522.275806	2.208910322
19	0	0		18	5504.275806	2.201710322
20	0	0		18	5486.275806	2.194510322
21	0	0		18	5468.275806	2.187310322
22	0	0		18	5450.275806	2.180110322
23	0	0		18	5432.275806	2.172910322
24	0	0		18	5414.275806	2.165710322
25	0	0		18	5396.275806	2.158510322
26	0	0		18	5378.275806	2.151310322
27	0	0		18	5360.275806	2.144110322
28	0	0		18	5342.275806	2.136910322
29	0	0		18	5324.275806	2.129710322
30	0	0		18	5306.275806	2.122510322
Oktober				540		
1	0	0		18	5288.275806	2.115310322
2	0	0		18	5270.275806	2.108110322
3	0	0		18	5252.275806	2.100910322
4	0	0		18	5234.275806	2.093710322
5	64	750.847776		0	5985.123582	2.394049433
6	10	117.319965		0	6102.443547	2.440977419
7	0	0		0	6102.443547	2.440977419
8	0	0		0	6102.443547	2.440977419
9	20	234.63993		0	6337.083477	2.534833391
10	2	23.463993		0	6360.54747	2.544218988
11	0	0		0	6360.54747	2.544218988
12	0	0		0	6360.54747	2.544218988
13	0	0		0	6360.54747	2.544218988
14	8	93.855972		0	6454.403442	2.581761377
15	0	0		0	6454.403442	2.581761377
16	0	0		0	6454.403442	2.581761377
17	0	0		0	6454.403442	2.581761377
18	0	0		18	6436.403442	2.574561377
19	0	0		18	6418.403442	2.567361377
20	0	0		18	6400.403442	2.560161377
21	2	23.463993		0	6423.867435	2.569546974
22	0	0		0	6423.867435	2.569546974
23	0	0		0	6423.867435	2.569546974
24	0	0		0	6423.867435	2.569546974
25	37	434.0838705		0	6857.951306	2.743180522
26	0	0		0	6857.951306	2.743180522
27	0	0		0	6857.951306	2.743180522
28	0	0		0	6857.951306	2.743180522
29	0	0		18	6839.951306	2.735980522
30	0	0		18	6821.951306	2.728780522
31	0	0		18	6803.951306	2.721580522
November				180		
1	0	0		18	6785.951306	2.714380522
2	0	0		18	6767.951306	2.707180522
3	0	0		18	6749.951306	2.699980522
4	0	0		18	6731.951306	2.692780522
5	27	316.7639055		0	7048.715211	2.819486084
6	0	0		0	7048.715211	2.819486084
7	17	199.4439405		0	7248.159152	2.899263661
8	0	0		0	7248.159152	2.899263661
9	0	0		0	7248.159152	2.899263661
10	42	492.743853	1200	0	6540.903005	2.616361202



11	0	0		0	6540.903005	2.616361202
12	0	0		0	6540.903005	2.616361202
13	0	0		0	6540.903005	2.616361202
14	0	0		18	6522.903005	2.609161202
15	13	152.5159545		0	6675.418959	2.670167584
16	8	93.855972		0	6769.274931	2.707709972
17	0	0		0	6769.274931	2.707709972
18	38	445.815867		0	7215.090798	2.886036319
19	0	0		0	7215.090798	2.886036319
20	3	35.1959895		0	7250.286788	2.900114715
21	0	0		0	7250.286788	2.900114715
22	0	0		0	7250.286788	2.900114715
23	0	0		0	7250.286788	2.900114715
24	8	93.855972		0	7344.14276	2.937657104
25	40	469.27986	1200	0	6613.42262	2.645369048
26	0	0		0	6613.42262	2.645369048
27	29	340.2278985		0	6953.650518	2.781460207
28	5	58.6599825		0	7012.310501	2.8049242
29	0	0		0	7012.310501	2.8049242
30	3	35.1959895		0	7047.50649	2.819002596
Desenber				90		
1	0	0		0	7047.50649	2.819002596
2	0	0		0	7047.50649	2.819002596
3	0	0		0	7047.50649	2.819002596
4	0	0		18	7029.50649	2.811802596
5	27	316.7639055		0	7346.270396	2.938508158
6	0	0		0	7346.270396	2.938508158
7	17	199.4439405	1200	0	6345.714336	2.538285734
8	0	0		0	6345.714336	2.538285734
9	0	0		0	6345.714336	2.538285734
10	42	492.743853	1200	0	5638.458189	2.255383276
11	0	0		0	5638.458189	2.255383276
12	0	0		0	5638.458189	2.255383276
13	0	0		0	5638.458189	2.255383276
14	0	0		18	5620.458189	2.248183276
15	13	152.5159545		0	5772.974144	2.309189657
16	8	93.855972		0	5866.830116	2.346732046
17	0	0		0	5866.830116	2.346732046
18	38	445.815867		0	6312.645983	2.525058393
19	0	0		0	6312.645983	2.525058393
20	3	35.1959895		0	6347.841972	2.539136789
21	0	0		0	6347.841972	2.539136789
22	0	0		0	6347.841972	2.539136789
23	0	0		0	6347.841972	2.539136789
24	8	93.855972		0	6441.697944	2.576679178
25	40	469.27986		0	6910.977804	2.764391122
26	0	0		0	6910.977804	2.764391122
27	29	340.2278985	1200	0	6051.205703	2.420482281
28	5	58.6599825		0	6109.865685	2.443946274
29	0	0		0	6109.865685	2.443946274
30	3	35.1959895		0	6145.061675	2.45802467
31	31	363.6918915		0	6508.753566	2.603501426

**TAMAN ALUMNI ITS**

TANGGAL	R (mm)						
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)	
1	38	400.960895	1000		0	5412.112034	1.804037345
2	30	316.548075			0	5728.660109	1.90955337
3	12	126.61923			0	5855.279339	1.95175978
4	65	685.854163	1000		0	5541.133501	1.8470445
5	0	0			0	5541.133501	1.8470445
6	0	0			0	5541.133501	1.8470445
7	22	232.135255			0	5773.268756	1.924422919
8	0	0			0	5773.268756	1.924422919
9	0	0			0	5773.268756	1.924422919
10	0	0			0	5773.268756	1.924422919
11	0	0			18	5755.268756	1.918422919
12	0	0			18	5737.268756	1.912422919
13	0	0			18	5719.268756	1.906422919
14	0	0			18	5701.268756	1.900422919
15	42	443.167305	1000		0	5144.436061	1.71481202
16	0	0			0	5144.436061	1.71481202
17	0	0			0	5144.436061	1.71481202
18	26	274.341665			0	5418.777726	1.806259242
19	47	495.925318	1000		0	4914.703044	1.638234348
20	0	0			0	4914.703044	1.638234348
21	22	232.135255			0	5146.838299	1.715612766
22	30	316.548075			0	5463.386374	1.821128791
23	14	147.722435			0	5611.108809	1.870369603
24	0	0			0	5611.108809	1.870369603
25	11	116.067628			0	5727.176436	1.909058812
26	0	0			0	5727.176436	1.909058812
27	62	654.199355	1000		0	5381.375791	1.79379193
28	66	696.405765	1000		0	5077.781556	1.692593852
29	58	611.992945	1000		0	4689.774501	1.563258167
30	0	0			0	4689.774501	1.563258167
31	0	0			0	4689.774501	1.563258167
Februari							
1	0	0			0	4689.774501	1.563258167
2	8	84.41282			0	4774.187321	1.591395774
3	15	158.274038			0	4932.461359	1.644153786
4	25	263.790063			0	5196.251421	1.732083807
5	0	0			0	5196.251421	1.732083807
6	0	0			0	5196.251421	1.732083807
7	0	0			0	5196.251421	1.732083807
8	0	0			18	5178.251421	1.726083807
9	0	0			18	5160.251421	1.720083807
10	0	0			18	5142.251421	1.714083807
11	7	73.8612175			0	5216.112639	1.738704213
12	0	0			0	5216.112639	1.738704213
13	0	0			0	5216.112639	1.738704213
14	20	211.03205			0	5427.144689	1.80904823
15	19	200.480448	1000		0	4627.625136	1.542541712
16	0	0			0	4627.625136	1.542541712
17	45	474.822113			0	5102.447249	1.70081575
18	0	0			0	5102.447249	1.70081575
19	0	0			0	5102.447249	1.70081575
20	0	0			0	5102.447249	1.70081575
21	0	0			18	5084.447249	1.69481575
22	0	0			18	5066.447249	1.68881575
23	0	0			18	5048.447249	1.68281575
24	0	0			18	5030.447249	1.67681575
25	25	263.790063			0	5294.237311	1.76474577
26	10	105.516025			0	5399.753336	1.799917779
27	50	527.580125	1000		0	4927.333461	1.642444487
28	38	400.960895			0	5328.294356	1.776098119
Maret							
1	0	0			0	5328.294356	1.776098119
2	0	0			0	5328.294356	1.776098119
3	8	84.41282			0	5412.707176	1.804235725
4	12	126.61923			0	5539.326406	1.846442135
5	0	0			0	5539.326406	1.846442135
6	10	105.516025			0	5644.842431	1.881614144
7	0	0			0	5644.842431	1.881614144
8	0	0			0	5644.842431	1.881614144
9	10	105.516025			0	5750.358456	1.916786152
10	18	189.928845			0	5940.287301	1.980095767

11	22	232.135255	1000	0	5172.422556	1.724140852
12	35	369.306088	1000	0	4541.728644	1.513909548
13	20	211.03205		0	4752.760694	1.584253565
14	25	263.790063		0	5016.550756	1.672183585
15	40	422.0641	1000	0	4438.614856	1.479538285
16	25	263.790063		0	4702.404919	1.567468306
17	21	221.583653	1000	0	3923.988571	1.30799619
18	20	211.03205		0	4135.020621	1.378340207
19	35	369.306088		0	4504.326709	1.501442236
20	0	0		0	4504.326709	1.501442236
21	0	0		0	4504.326709	1.501442236
22	0	0		0	4504.326709	1.501442236
23	0	0		18	4486.326709	1.495442236
24	0	0		18	4468.326709	1.489442236
25	0	0		18	4450.326709	1.483442236
26	0	0		18	4432.326709	1.477442236
27	0	0		18	4414.326709	1.471442236
28	53	559.234933		0	4973.561641	1.65785388
29	25	263.790063	1000	0	4237.351704	1.412450568
30	0	0		0	4237.351704	1.412450568
31	0	0		0	4237.351704	1.412450568
April						
1	30	316.548075		0	4553.899779	1.517966593
2	10	105.516025		0	4659.415804	1.553138601
3	0	0		0	4659.415804	1.553138601
4	12	126.61923		0	4786.035034	1.595345011
5	0	0		0	4786.035034	1.595345011
6	30	316.548075	1000	0	4102.583109	1.367527703
7	0	0		0	4102.583109	1.367527703
8	20	211.03205		0	4313.615159	1.43787172
9	22	232.135255	1000	0	3545.750414	1.181916805
10	0	0		0	3545.750414	1.181916805
11	0	0		0	3545.750414	1.181916805
12	0	0		18	3527.750414	1.175916805
13	12	126.61923		0	3654.369644	1.218123215
14	6	63.309615		18	3699.679259	1.23322642
15	20	211.03205		0	3910.711309	1.303570436
16	25	263.790063	1000	0	3174.501371	1.058167124
17	0	0		0	3174.501371	1.058167124
18	0	0		0	3174.501371	1.058167124
19	8	84.41282		0	3258.914191	1.08630473
20	7	73.8612175		0	3332.775409	1.110925136
21	5	52.7580125		0	3385.533421	1.12851114
22	0	0		0	3385.533421	1.12851114
23	80	844.1282	1000	0	3229.661621	1.076553874
24	0	0		0	3229.661621	1.076553874
25	0	0		0	3229.661621	1.076553874
26	0	0		0	3229.661621	1.076553874
27	0	0		18	3211.661621	1.070553874
28	5	52.7580125		0	3264.419634	1.088139878
29	0	0		0	3264.419634	1.088139878
30	0	0		0	3264.419634	1.088139878

Mei						
1	10	105.516025		0	3369.935659	1.123311886
2	0	0		0	3369.935659	1.123311886
3	0	0		0	3369.935659	1.123311886
4	0	0		0	3369.935659	1.123311886
5	0	0		18	3351.935659	1.117311886
6	0	0		18	3333.935659	1.111311886
7	0	0		18	3315.935659	1.105311886
8	0	0		18	3297.935659	1.099311886
9	20	211.03205		0	3508.967709	1.169655903
10	12	126.61923		0	3635.586939	1.211862313
11	0	0		0	3635.586939	1.211862313
12	18	189.928845		0	3825.515784	1.275171928
13	0	0		0	3825.515784	1.275171928
14	47	495.925318	1000	0	3321.441101	1.107147034
15	0	0		0	3321.441101	1.107147034
16	0	0		0	3321.441101	1.107147034
17	0	0		0	3321.441101	1.107147034
18	0	0		18	3303.441101	1.101147034
19	0	0		18	3285.441101	1.095147034
20	19	200.480448		0	3485.921549	1.16197385
21	8	84.41282		0	3570.334369	1.190111456
22	10	105.516025		0	3675.850394	1.225283465
23	12	126.61923		0	3802.469624	1.267489875
24	70	738.612175		0	4541.081799	1.513693933
25	0	0		0	4541.081799	1.513693933
26	0	0		0	4541.081799	1.513693933
27	42	443.167305		0	4984.249104	1.661416368
28	25	263.790063		0	5248.039166	1.749346389
29	0	0		0	5248.039166	1.749346389
30	0	0		0	5248.039166	1.749346389
31	0	0		0	5248.039166	1.749346389
Juni						
1	0	0		18	5230.039166	1.743346389
2	0	0		18	5212.039166	1.737346389
3	15	158.274038		0	5370.313204	1.790104401
4	0	0		0	5370.313204	1.790104401
5	0	0		0	5370.313204	1.790104401
6	25	263.790063		0	5634.103266	1.878034422
7	17	179.377243		0	5813.480509	1.937826836
8	0	0		0	5813.480509	1.937826836
9	5	52.7580125		0	5866.238521	1.95541284
10	0	0		0	5866.238521	1.95541284
11	0	0		0	5866.238521	1.95541284
12	0	0		0	5866.238521	1.95541284
13	0	0		18	5848.238521	1.94941284
14	5	52.7580125		0	5900.996534	1.966998845
15	39	411.512498		0	6312.509031	2.104169677
16	0	0		0	6312.509031	2.104169677
17	0	0		0	6312.509031	2.104169677
18	52	548.68333		0	6861.192361	2.28706412
19	0	0		0	6861.192361	2.28706412
20	0	0		0	6861.192361	2.28706412
21	0	0		0	6861.192361	2.28706412
22	0	0		18	6843.192361	2.28106412
23	0	0		18	6825.192361	2.27506412
24	0	0		18	6807.192361	2.26906412
25	0	0		0	6807.192361	2.26906412
26	8	84.41282		0	6891.605181	2.297201727
27	15	158.274038		0	7049.879219	2.34995974
28	41	432.615703		0	7482.494921	2.494164974
29	0	0		0	7482.494921	2.494164974
30	0	0		0	7482.494921	2.494164974
Juli						
1	0	0		0	7482.494921	2.494164974
2	0	0		18	7464.494921	2.488164974
3	65	685.854163		0	8150.349084	2.716783028
4	0	0		0	8150.349084	2.716783028
5	0	0		0	8150.349084	2.716783028
6	0	0		0	8150.349084	2.716783028
7	0	0		18	8132.349084	2.710783028
8	0	0		18	8114.349084	2.704783028
9	0	0		18	8096.349084	2.698783028
10	0	0		18	8078.349084	2.692783028

11	0	0		18	8060.349084	2.686783028
12	0	0		18	8042.349084	2.680783028
13	0	0		18	8024.349084	2.674783028
14	0	0		18	8006.349084	2.668783028
15	0	0		18	7988.349084	2.662783028
16	0	0		18	7970.349084	2.656783028
17	0	0		18	7952.349084	2.650783028
18	0	0		18	7934.349084	2.644783028
19	0	0		18	7916.349084	2.638783028
20	0	0		18	7898.349084	2.632783028
21	0	0		18	7880.349084	2.626783028
22	7	73.8612175		0	7954.210301	2.651403434
23	0	0		0	7954.210301	2.651403434
24	0	0		0	7954.210301	2.651403434
25	0	0		0	7954.210301	2.651403434
26	0	0		18	7936.210301	2.645403434
27	0	0		18	7918.210301	2.639403434
28	0	0		18	7900.210301	2.633403434
29	0	0		18	7882.210301	2.627403434
30	0	0		18	7864.210301	2.621403434
31	0	0		18	7846.210301	2.615403434
Agustus						
1	0	0		18	7828.210301	2.609403434
2	0	0		18	7810.210301	2.603403434
3	0	0		18	7792.210301	2.597403434
4	0	0		18	7774.210301	2.591403434
5	0	0		18	7756.210301	2.585403434
6	0	0		18	7738.210301	2.579403434
7	0	0		18	7720.210301	2.573403434
8	0	0		18	7702.210301	2.567403434
9	0	0		18	7684.210301	2.561403434
10	0	0		18	7666.210301	2.555403434
11	0	0		18	7648.210301	2.549403434
12	0	0		18	7630.210301	2.543403434
13	0	0		18	7612.210301	2.537403434
14	0	0		18	7594.210301	2.531403434
15	0	0		18	7576.210301	2.525403434
16	0	0		18	7558.210301	2.519403434
17	0	0		18	7540.210301	2.513403434
18	0	0		18	7522.210301	2.507403434
19	0	0		18	7504.210301	2.501403434
20	0	0		18	7486.210301	2.495403434
21	0	0		18	7468.210301	2.489403434
22	0	0		18	7450.210301	2.483403434
23	0	0		18	7432.210301	2.477403434
24	0	0		18	7414.210301	2.471403434
25	0	0		18	7396.210301	2.465403434
26	0	0		18	7378.210301	2.459403434
27	0	0		18	7360.210301	2.453403434
28	0	0		18	7342.210301	2.447403434
29	0	0		18	7324.210301	2.441403434
30	0	0		18	7306.210301	2.435403434
31	0	0		18	7288.210301	2.429403434

September						
1	0	0		18	7270.210301	2.423403434
2	0	0		18	7252.210301	2.417403434
3	0	0		18	7234.210301	2.411403434
4	0	0		18	7216.210301	2.405403434
5	0	0		18	7198.210301	2.399403434
6	0	0		18	7180.210301	2.393403434
7	0	0		18	7162.210301	2.387403434
8	0	0		18	7144.210301	2.381403434
9	0	0		18	7126.210301	2.375403434
10	0	0		18	7108.210301	2.369403434
11	0	0		18	7090.210301	2.363403434
12	0	0		18	7072.210301	2.357403434
13	0	0		18	7054.210301	2.351403434
14	0	0		18	7036.210301	2.345403434
15	0	0		18	7018.210301	2.339403434
16	0	0		18	7000.210301	2.333403434
17	0	0		18	6982.210301	2.327403434
18	0	0		18	6964.210301	2.321403434
19	0	0		18	6946.210301	2.315403434
20	0	0		18	6928.210301	2.309403434
21	0	0		18	6910.210301	2.303403434
22	0	0		18	6892.210301	2.297403434
23	0	0		18	6874.210301	2.291403434
24	0	0		18	6856.210301	2.285403434
25	0	0		18	6838.210301	2.279403434
26	0	0		18	6820.210301	2.273403434
27	0	0		18	6802.210301	2.267403434
28	0	0		18	6784.210301	2.261403434
29	0	0		18	6766.210301	2.255403434
30	0	0		18	6748.210301	2.249403434
Oktober						
1	0	0		18	6730.210301	2.243403434
2	0	0		18	6712.210301	2.237403434
3	0	0		18	6694.210301	2.231403434
4	0	0		18	6676.210301	2.225403434
5	0	0		18	6658.210301	2.219403434
6	0	0		18	6640.210301	2.213403434
7	0	0		18	6622.210301	2.207403434
8	0	0		18	6604.210301	2.201403434
9	0	0		18	6586.210301	2.195403434
10	0	0		18	6568.210301	2.189403434
11	0	0		18	6550.210301	2.183403434
12	0	0		18	6532.210301	2.177403434
13	0	0		18	6514.210301	2.171403434
14	0	0		18	6496.210301	2.165403434
15	0	0		18	6478.210301	2.159403434
16	0	0		18	6460.210301	2.153403434
17	0	0		18	6442.210301	2.147403434
18	0	0		18	6424.210301	2.141403434
19	0	0		18	6406.210301	2.135403434
20	0	0		18	6388.210301	2.129403434
21	0	0		18	6370.210301	2.123403434
22	0	0		18	6352.210301	2.117403434
23	0	0		18	6334.210301	2.111403434
24	0	0		18	6316.210301	2.105403434
25	0	0		18	6298.210301	2.099403434
26	0	0		18	6280.210301	2.093403434
27	0	0		18	6262.210301	2.087403434
28	0	0		18	6244.210301	2.081403434
29	0	0		18	6226.210301	2.075403434
30	0	0		18	6208.210301	2.069403434
31	0	0		18	6190.210301	2.063403434
November						
1	0	0		18	6172.210301	2.057403434
2	0	0		18	6154.210301	2.051403434
3	0	0		18	6136.210301	2.045403434
4	0	0		18	6118.210301	2.039403434
5	0	0		18	6100.210301	2.033403434
6	0	0		18	6082.210301	2.027403434
7	0	0		18	6064.210301	2.021403434
8	0	0		18	6046.210301	2.015403434
9	0	0		18	6028.210301	2.009403434
10	0	0		18	6010.210301	2.003403434

11	0	0		18	5992.210301	1.997403434
12	0	0		18	5974.210301	1.991403434
13	0	0		18	5956.210301	1.985403434
14	0	0		18	5938.210301	1.979403434
15	5	52.7580125		0	5990.968314	1.996989438
16	10	105.516025		0	6096.484339	2.032161446
17	5	52.7580125		0	6149.242351	2.04974745
18	0	0		0	6149.242351	2.04974745
19	0	0		0	6149.242351	2.04974745
20	15	158.274038		0	6307.516389	2.102505463
21	0	0		0	6307.516389	2.102505463
22	10	105.516025		0	6413.032414	2.137677471
23	0	0		0	6413.032414	2.137677471
24	0	0		0	6413.032414	2.137677471
25	7	73.8612175		0	6486.893631	2.162297877
26	30	316.548075		0	6803.441706	2.267813902
27	0	0		0	6803.441706	2.267813902
28	15	158.274038		0	6961.715744	2.320571915
29	20	211.03205		0	7172.747794	2.390915931
30	0	0		0	7172.747794	2.390915931
Desember						
1	0	0		0	7172.747794	2.390915931
2	15	158.274038		0	7331.021831	2.443673944
3	0	0		0	7331.021831	2.443673944
4	0	0		0	7331.021831	2.443673944
5	31	327.099678		0	7658.121509	2.55270717
6	10	105.516025		0	7763.637534	2.587879178
7	0	0		0	7763.637534	2.587879178
8	25	263.790063		0	8027.427596	2.675809199
9	6	63.309615		0	8090.737211	2.696912404
10	5	52.7580125		0	8143.495224	2.714498408
11	10	105.516025		0	8249.011249	2.749670416
12	15	158.274038		0	8407.285286	2.802428429
13	20	211.03205		0	8618.317336	2.872772445
14	40	422.0641	1000	0	8040.381436	2.680127145
15	20	211.03205	1000	0	7251.413486	2.417137829
16	62	654.199355	1000	0	6905.612841	2.301870947
17	30	316.548075	1000	0	6222.160916	2.074053639
18	0	0		0	6222.160916	2.074053639
19	0	0		0	6222.160916	2.074053639
20	0	0		0	6222.160916	2.074053639
21	0	0		18	6204.160916	2.068053639
22	0	0		18	6186.160916	2.062053639
23	0	0		18	6168.160916	2.056053639
24	0	0		18	6150.160916	2.050053639
25	0	0		18	6132.160916	2.044053639
26	0	0		18	6114.160916	2.038053639
27	0	0		18	6096.160916	2.032053639
28	0	0		18	6078.160916	2.026053639
29	0	0		18	6060.160916	2.020053639
30	0	0		18	6042.160916	2.014053639
31	0	0		18	6024.160916	2.008053639

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	15	175.9799475		0	6684.733514	2.673893405
2	29	340.2278985		0	7024.961412	2.809984565
3	0	0		0	7024.961412	2.809984565
4	36	422.351874	1200	0	6247.313286	2.498925314
5	5	58.6599825		0	6305.973269	2.522389307
6	0	0		0	6305.973269	2.522389307
7	23	269.8359195		0	6575.809188	2.630323675
8	7	82.1239755		0	6657.933164	2.663173265
9	16	187.711944		0	6845.645108	2.738258043
10	0	0		0	6845.645108	2.738258043
11	13	152.5159545		0	6998.161062	2.799264425
12	0	0		0	6998.161062	2.799264425
13	7	82.1239755		0	7080.285038	2.832114015
14	0	0		0	7080.285038	2.832114015
15	44	516.207846	1200	0	6396.492884	2.558597153
16	0	0		0	6396.492884	2.558597153
17	23	269.8359195	1200	0	5466.328803	2.186531521
18	13	152.5159545		0	5618.844758	2.247537903
19	0	0		0	5618.844758	2.247537903
20	0	0		0	5618.844758	2.247537903
21	6	70.391979		0	5689.236737	2.275694695
22	0	0		0	5689.236737	2.275694695
23	41	481.0118565		0	6170.248593	2.468099437
24	0	0		0	6170.248593	2.468099437
25	2	23.463993		0	6193.712586	2.477485034
26	0	0		0	6193.712586	2.477485034
27	8	93.855972		0	6287.568558	2.515027423
28	11	129.0519615		0	6416.62052	2.566648208
29	36	422.351874	1200	0	5638.972394	2.255588957
30	123	1443.03557	1200	0	5882.007963	2.352803185
31	0	0		0	5882.007963	2.352803185
Februari						
1	0	0		0	5882.007963	2.352803185
2	0	0		0	5882.007963	2.352803185
3	15	175.9799475		0	6057.987911	2.423195164
4	0	0		0	6057.987911	2.423195164
5	0	0		0	6057.987911	2.423195164
6	3	35.1959895		0	6093.1839	2.43727356
7	0	0		0	6093.1839	2.43727356
8	2	23.463993		0	6116.647893	2.446659157
9	0	0		0	6116.647893	2.446659157
10	12	140.783958		0	6257.431851	2.50297274
11	0	0		0	6257.431851	2.50297274
12	0	0		0	6257.431851	2.50297274
13	21	246.3719265		0	6503.803778	2.601521511
14	0	0		0	6503.803778	2.601521511
15	10	117.319965		0	6621.123743	2.648449497
16	8	93.855972		0	6714.979715	2.685991886
17	0	0		0	6714.979715	2.685991886
18	0	0		0	6714.979715	2.685991886
19	0	0		0	6714.979715	2.685991886
20	4	46.927986		0	6761.907701	2.70476308
21	0	0		0	6761.907701	2.70476308
22	9	105.5879685		0	6867.495669	2.746998268
23	17	199.4439405		0	7066.93961	2.826775844
24	0	0		0	7066.93961	2.826775844
25	3	35.1959895		0	7102.135599	2.84085424
26	6	70.391979		0	7172.527578	2.869011031
27	4	46.927986		0	7219.455564	2.887782226
28	1	11.7319965		0	7231.187561	2.892475024
Maret						
1	2	23.463993		0	7254.651554	2.901860621
2	0	0		0	7254.651554	2.901860621
3	0	0		0	7254.651554	2.901860621
4	0	0		0	7254.651554	2.901860621
5	0	0		18	7236.651554	2.894660621
6	19	222.9079335	1200	0	6259.559487	2.503823795
7	0	0		0	6259.559487	2.503823795
8	30	351.959895		0	6611.519382	2.644607753
9	0	0		0	6611.519382	2.644607753



10	42	492.743853		0	7104.263235	2.841705294
11	1	11.7319965		0	7115.995232	2.846398093
12	0	0		0	7115.995232	2.846398093
13	0	0		0	7115.995232	2.846398093
14	0	0		0	7115.995232	2.846398093
15	0	0		18	7097.995232	2.839198093
16	0	0		18	7079.995232	2.831998093
17	0	0		18	7061.995232	2.824798093
18	0	0		18	7043.995232	2.817598093
19	0	0		18	7025.995232	2.810398093
20	0	0		18	7007.995232	2.803198093
21	0	0		18	6989.995232	2.795998093
22	0	0		18	6971.995232	2.788798093
23	0	0		18	6953.995232	2.781598093
24	0	0		18	6935.995232	2.774398093
25	2	23.463993		0	6959.459225	2.78378369
26	9	105.5879685		0	7065.047193	2.826018877
27	5	58.6599825		0	7123.707176	2.84948287
28	2	23.463993		0	7147.171169	2.858868467
29	7	82.1239755		0	7229.295144	2.891718058
30	10	117.319965		0	7346.615109	2.938646044
31	2	23.463993		0	7370.079102	2.948031641
April						
1	6	70.391979		0	7440.471081	2.976188432
2	2	23.463993		0	7463.935074	2.98557403
3	3	35.1959895		0	7499.131064	2.999652425
4	0	0		0	7499.131064	2.999652425
5	0	0		0	7499.131064	2.999652425
6	0	0		0	7499.131064	2.999652425
7	0	0		18	7481.131064	2.992452425
8	0	0		18	7463.131064	2.985252425
9	0	0		18	7445.131064	2.978052425
10	0	0		18	7427.131064	2.970852425
11	0	0		18	7409.131064	2.963652425
12	0	0		18	7391.131064	2.956452425
13	0	0		18	7373.131064	2.949252425
14	0	0		18	7355.131064	2.942052425
15	65	762.5797725	1200	0	6917.710836	2.767084334
16	10	117.319965		0	7035.030801	2.81401232
17	10	117.319965		0	7152.350766	2.860940306
18	1	11.7319965		0	7164.082763	2.865633105
19	7	82.1239755		0	7246.206738	2.898482695
20	4	46.927986		0	7293.134724	2.91725389
21	0	0		0	7293.134724	2.91725389
22	0	0		0	7293.134724	2.91725389
23	0	0		0	7293.134724	2.91725389
24	0	0		18	7275.134724	2.91005389
25	27	316.7639055	1200	0	6391.89863	2.556759452
26	0	0		0	6391.89863	2.556759452
27	0	0		0	6391.89863	2.556759452
28	0	0		0	6391.89863	2.556759452
29	0	0		18	6373.89863	2.549559452
30	0	0		18	6355.89863	2.542359452

Mei						
1	0	0		18	6337.89863	2.535159452
2	1	11.7319965		0	6349.630626	2.53985225
3	0	0		0	6349.630626	2.53985225
4	0	0		0	6349.630626	2.53985225
5	0	0		0	6349.630626	2.53985225
6	0	0		18	6331.630626	2.53265225
7	0	0		18	6313.630626	2.52545225
8	0	0		18	6295.630626	2.51825225
9	5	58.6599825		0	6354.290609	2.541716243
10	5	58.6599825		0	6412.950591	2.565180236
11	32	375.423888		0	6788.374479	2.715349792
12	0	0		0	6788.374479	2.715349792
13	1	11.7319965		0	6800.106476	2.72004259
14	0	0		0	6800.106476	2.72004259
15	0	0		0	6800.106476	2.72004259
16	0	0		0	6800.106476	2.72004259
17	0	0		18	6782.106476	2.71284259
18	0	0		18	6764.106476	2.70564259
19	0	0		18	6746.106476	2.69844259
20	0	0		18	6728.106476	2.69124259
21	0	0		18	6710.106476	2.68404259
22	0	0		18	6692.106476	2.67684259
23	9	105.5879685		0	6797.694444	2.719077778
24	0	0		0	6797.694444	2.719077778
25	0	0		0	6797.694444	2.719077778
26	0	0		0	6797.694444	2.719077778
27	0	0		18	6779.694444	2.711877778
28	0	0		18	6761.694444	2.704677778
29	32	375.423888	1200	0	5937.118332	2.374847333
30	0	0		0	5937.118332	2.374847333
31	0	0		0	5937.118332	2.374847333
Juni						
1	0	0		0	5937.118332	2.374847333
2	0	0		18	5919.118332	2.367647333
3	0	0		18	5901.118332	2.360447333
4	0	0		18	5883.118332	2.353247333
5	0	0		18	5865.118332	2.346047333
6	0	0		18	5847.118332	2.338847333
7	0	0		18	5829.118332	2.331647333
8	0	0		18	5811.118332	2.324447333
9	0	0		18	5793.118332	2.317247333
10	0	0		18	5775.118332	2.310047333
11	0	0		18	5757.118332	2.302847333
12	0	0		18	5739.118332	2.295647333
13	0	0		18	5721.118332	2.288447333
14	0	0		18	5703.118332	2.281247333
15	0	0		18	5685.118332	2.274047333
16	0	0		18	5667.118332	2.266847333
17	0	0		18	5649.118332	2.259647333
18	0	0		18	5631.118332	2.252447333
19	0	0		18	5613.118332	2.245247333
20	0	0		18	5595.118332	2.238047333
21	0	0		18	5577.118332	2.230847333
22	0	0		18	5559.118332	2.223647333
23	0	0		18	5541.118332	2.216447333
24	0	0		18	5523.118332	2.209247333
25	0	0		18	5505.118332	2.202047333
26	0	0		18	5487.118332	2.194847333
27	0	0		18	5469.118332	2.187647333
28	0	0		18	5451.118332	2.180447333
29	0	0		18	5433.118332	2.173247333
30	0	0		18	5415.118332	2.166047333
Juli						
1	0	0		18	5397.118332	2.158847333
2	0	0		18	5379.118332	2.151647333
3	0	0		18	5361.118332	2.144447333
4	0	0		18	5343.118332	2.137247333
5	0	0		18	5325.118332	2.130047333
6	0	0		18	5307.118332	2.122847333
7	0	0		18	5289.118332	2.115647333
8	0	0		18	5271.118332	2.108447333
9	0	0		18	5253.118332	2.101247333
10	0	0		18	5235.118332	2.094047333

11	0	0		18	5217.118332	2.086847333
12	0	0		18	5199.118332	2.079647333
13	0	0		18	5181.118332	2.072447333
14	0	0		18	5163.118332	2.065247333
15	0	0		18	5145.118332	2.058047333
16	0	0		18	5127.118332	2.050847333
17	0	0		18	5109.118332	2.043647333
18	2	23.463993		18	5114.582325	2.04583293
19	0	0		18	5096.582325	2.03863293
20	0	0		18	5078.582325	2.03143293
21	0	0		18	5060.582325	2.02423293
22	0	0		18	5042.582325	2.01703293
23	0	0		18	5024.582325	2.00983293
24	0	0		18	5006.582325	2.00263293
25	0	0		18	4988.582325	1.99543293
26	0	0		18	4970.582325	1.98823293
27	0	0		18	4952.582325	1.98103293
28	0	0		18	4934.582325	1.97383293
29	0	0		18	4916.582325	1.96663293
30	0	0		18	4898.582325	1.95943293
31	0	0		18	4880.582325	1.95223293
Agustus						
1	0	0		18	4862.582325	1.94503293
2	0	0		18	4844.582325	1.93783293
3	0	0		18	4826.582325	1.93063293
4	0	0		18	4808.582325	1.92343293
5	0	0		18	4790.582325	1.91623293
6	0	0		18	4772.582325	1.90903293
7	0	0		18	4754.582325	1.90183293
8	0	0		18	4736.582325	1.89463293
9	0	0		18	4718.582325	1.88743293
10	0	0		18	4700.582325	1.88023293
11	0	0		18	4682.582325	1.87303293
12	0	0		18	4664.582325	1.86583293
13	0	0		18	4646.582325	1.85863293
14	0	0		18	4628.582325	1.85143293
15	0	0		18	4610.582325	1.84423293
16	0	0		18	4592.582325	1.83703293
17	0	0		18	4574.582325	1.82983293
18	0	0		18	4556.582325	1.82263293
19	0	0		18	4538.582325	1.81543293
20	0	0		18	4520.582325	1.80823293
21	0	0		18	4502.582325	1.80103293
22	0	0		18	4484.582325	1.79383293
23	0	0		18	4466.582325	1.78663293
24	0	0		18	4448.582325	1.77943293
25	0	0		18	4430.582325	1.77223293
26	0	0		18	4412.582325	1.76503293
27	0	0		18	4394.582325	1.75783293
28	0	0		18	4376.582325	1.75063293
29	0	0		18	4358.582325	1.74343293
30	0	0		18	4340.582325	1.73623293
31	0	0		18	4322.582325	1.72903293

September						
1	0	0		18	4304.582325	1.72183293
2	0	0		18	4286.582325	1.71463293
3	0	0		18	4268.582325	1.70743293
4	0	0		18	4250.582325	1.70023293
5	0	0		18	4232.582325	1.69303293
6	0	0		18	4214.582325	1.68583293
7	0	0		18	4196.582325	1.67863293
8	0	0		18	4178.582325	1.67143293
9	0	0		18	4160.582325	1.66423293
10	0	0		18	4142.582325	1.65703293
11	0	0		18	4124.582325	1.64983293
12	0	0		18	4106.582325	1.64263293
13	0	0		18	4088.582325	1.63543293
14	0	0		18	4070.582325	1.62823293
15	0	0		18	4052.582325	1.62103293
16	0	0		18	4034.582325	1.61383293
17	0	0		18	4016.582325	1.60663293
18	0	0		18	3998.582325	1.59943293
19	0	0		18	3980.582325	1.59223293
20	0	0		18	3962.582325	1.58503293
21	0	0		18	3944.582325	1.57783293
22	0	0		18	3926.582325	1.57063293
23	0	0		18	3908.582325	1.56343293
24	0	0		18	3890.582325	1.55623293
25	0	0		18	3872.582325	1.54903293
26	0	0		18	3854.582325	1.54183293
27	0	0		18	3836.582325	1.53463293
28	0	0		18	3818.582325	1.52743293
29	0	0		18	3800.582325	1.52023293
30	0	0		18	3782.582325	1.51303293
Oktober						
1	0	0		18	3764.582325	1.50583293
2	0	0		18	3746.582325	1.49863293
3	0	0		18	3728.582325	1.49143293
4	0	0		18	3710.582325	1.48423293
5	0	0		18	3692.582325	1.47703293
6	0	0		18	3674.582325	1.46983293
7	0	0		18	3656.582325	1.46263293
8	0	0		18	3638.582325	1.45543293
9	0	0		18	3620.582325	1.44823293
10	0	0		18	3602.582325	1.44103293
11	0	0		18	3584.582325	1.43383293
12	0	0		18	3566.582325	1.42663293
13	0	0		18	3548.582325	1.41943293
14	0	0		18	3530.582325	1.41223293
15	0	0		18	3512.582325	1.40503293
16	0	0		18	3494.582325	1.39783293
17	0	0		18	3476.582325	1.39063293
18	0	0		18	3458.582325	1.38343293
19	0	0		18	3440.582325	1.37623293
20	0	0		18	3422.582325	1.36903293
21	0	0		18	3404.582325	1.36183293
22	0	0		18	3386.582325	1.35463293
23	0	0		18	3368.582325	1.34743293
24	0	0		18	3350.582325	1.34023293
25	0	0		18	3332.582325	1.33303293
26	0	0		18	3314.582325	1.32583293
27	0	0		18	3296.582325	1.31863293
28	0	0		18	3278.582325	1.31143293
29	0	0		18	3260.582325	1.30423293
30	0	0		18	3242.582325	1.29703293
31	0	0		18	3224.582325	1.28983293
November						
1	0	0		18	3206.582325	1.28263293
2	0	0		18	3188.582325	1.27543293
3	0	0		18	3170.582325	1.26823293
4	0	0		18	3152.582325	1.26103293
5	0	0		18	3134.582325	1.25383293
6	0	0		18	3116.582325	1.24663293
7	0	0		18	3098.582325	1.23943293
8	0	0		18	3080.582325	1.23223293
9	0	0		18	3062.582325	1.22503293
10	0	0		18	3044.582325	1.21783293

11	0	0		18	3026.582325	1.21063293
12	0	0		18	3008.582325	1.20343293
13	0	0		18	2990.582325	1.19623293
14	6.3	73.91157795		0	3064.493903	1.225797561
15	0	0		0	3064.493903	1.225797561
16	0	0		0	3064.493903	1.225797561
17	0	0		0	3064.493903	1.225797561
18	0	0		18	3046.493903	1.218597561
19	0	0		18	3028.493903	1.211397561
20	0	0		18	3010.493903	1.204197561
21	0	0		18	2992.493903	1.196997561
22	0	0		18	2974.493903	1.189797561
23	0	0		18	2956.493903	1.182597561
24	4.5	52.79398425		0	3009.287887	1.203715155
25	0	0		0	3009.287887	1.203715155
26	0	0		0	3009.287887	1.203715155
27	5	58.6599825		0	3067.94787	1.227179148
28	0	0		0	3067.94787	1.227179148
29	3	35.1959895		0	3103.143859	1.241257544
30	0	0		0	3103.143859	1.241257544
Desenber						
1	3	35.1959895		0	3138.339849	1.255335939
2	2.5	29.32999125		0	3167.66984	1.267067936
3	5	58.6599825		0	3226.329822	1.290531929
4	18	211.175937		0	3437.505759	1.375002304
5	47.5	557.2698338		0	3994.775593	1.597910237
6	0	0		0	3994.775593	1.597910237
7	0	0		0	3994.775593	1.597910237
8	0	0		0	3994.775593	1.597910237
9	0	0		18	3976.775593	1.590710237
10	2.5	29.32999125		0	4006.105584	1.602442234
11	0	0		0	4006.105584	1.602442234
12	0	0		0	4006.105584	1.602442234
13	83.2	976.1021088		0	4982.207693	1.992883077
14	0	0		0	4982.207693	1.992883077
15	0	0		0	4982.207693	1.992883077
16	0	0		0	4982.207693	1.992883077
17	0	0		18	4964.207693	1.985683077
18	0	0		18	4946.207693	1.978483077
19	0	0		18	4928.207693	1.971283077
20	0	0		18	4910.207693	1.964083077
21	0	0		18	4892.207693	1.956883077
22	0	0		18	4874.207693	1.949683077
23	0	0		18	4856.207693	1.942483077
24	1	11.7319965		0	4867.93969	1.947175876
25	0	0		0	4867.93969	1.947175876
26	22	258.103923		0	5126.043613	2.050417445
27	0	0		0	5126.043613	2.050417445
28	8	93.855972		0	5219.899585	2.087959834
29	0	0		0	5219.899585	2.087959834
30	0	0		0	5219.899585	2.087959834
31	2.4	28.1567916		0	5248.056376	2.099222551

**TAMAN ALUMNI ITS**

TANGGAL	R (mm)						
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)	
1	38	400.960895	1000		0	5412.112034	1.804037345
2	30	316.548075			0	5728.660109	1.90955337
3	12	126.61923			0	5855.279339	1.95175978
4	65	685.854163	1000		0	5541.133501	1.8470445
5	0	0			0	5541.133501	1.8470445
6	0	0			0	5541.133501	1.8470445
7	22	232.135255			0	5773.268756	1.924422919
8	0	0			0	5773.268756	1.924422919
9	0	0			0	5773.268756	1.924422919
10	0	0			0	5773.268756	1.924422919
11	0	0			18	5755.268756	1.918422919
12	0	0			18	5737.268756	1.912422919
13	0	0			18	5719.268756	1.906422919
14	0	0			18	5701.268756	1.900422919
15	42	443.167305	1000		0	5144.436061	1.71481202
16	0	0			0	5144.436061	1.71481202
17	0	0			0	5144.436061	1.71481202
18	26	274.341665			0	5418.777726	1.806259242
19	47	495.925318	1000		0	4914.703044	1.638234348
20	0	0			0	4914.703044	1.638234348
21	22	232.135255			0	5146.838299	1.715612766
22	30	316.548075			0	5463.386374	1.821128791
23	14	147.722435			0	5611.108809	1.870369603
24	0	0			0	5611.108809	1.870369603
25	11	116.067628			0	5727.176436	1.909058812
26	0	0			0	5727.176436	1.909058812
27	62	654.199355	1000		0	5381.375791	1.79379193
28	66	696.405765	1000		0	5077.781556	1.692593852
29	58	611.992945	1000		0	4689.774501	1.563258167
30	0	0			0	4689.774501	1.563258167
31	0	0			0	4689.774501	1.563258167
Februari							
1	0	0			0	4689.774501	1.563258167
2	8	84.41282			0	4774.187321	1.591395774
3	15	158.274038			0	4932.461359	1.644153786
4	25	263.790063			0	5196.251421	1.732083807
5	0	0			0	5196.251421	1.732083807
6	0	0			0	5196.251421	1.732083807
7	0	0			0	5196.251421	1.732083807
8	0	0			18	5178.251421	1.726083807
9	0	0			18	5160.251421	1.720083807
10	0	0			18	5142.251421	1.714083807
11	7	73.8612175			0	5216.112639	1.738704213
12	0	0			0	5216.112639	1.738704213
13	0	0			0	5216.112639	1.738704213
14	20	211.03205			0	5427.144689	1.80904823
15	19	200.480448	1000		0	4627.625136	1.542541712
16	0	0			0	4627.625136	1.542541712
17	45	474.822113			0	5102.447249	1.70081575
18	0	0			0	5102.447249	1.70081575
19	0	0			0	5102.447249	1.70081575
20	0	0			0	5102.447249	1.70081575
21	0	0			18	5084.447249	1.69481575
22	0	0			18	5066.447249	1.68881575
23	0	0			18	5048.447249	1.68281575
24	0	0			18	5030.447249	1.67681575
25	25	263.790063			0	5294.237311	1.76474577
26	10	105.516025			0	5399.753336	1.799917779
27	50	527.580125	1000		0	4927.333461	1.642444487
28	38	400.960895			0	5328.294356	1.776098119
Maret							
1	0	0			0	5328.294356	1.776098119
2	0	0			0	5328.294356	1.776098119
3	8	84.41282			0	5412.707176	1.804235725
4	12	126.61923			0	5539.326406	1.846442135
5	0	0			0	5539.326406	1.846442135
6	10	105.516025			0	5644.842431	1.881614144
7	0	0			0	5644.842431	1.881614144
8	0	0			0	5644.842431	1.881614144
9	10	105.516025			0	5750.358456	1.916786152
10	18	189.928845			0	5940.287301	1.980095767

11	22	232.135255	1000	0	5172.422556	1.724140852
12	35	369.306088	1000	0	4541.728644	1.513909548
13	20	211.03205		0	4752.760694	1.584253565
14	25	263.790063		0	5016.550756	1.672183585
15	40	422.0641	1000	0	4438.614856	1.479538285
16	25	263.790063		0	4702.404919	1.567468306
17	21	221.583653	1000	0	3923.988571	1.30799619
18	20	211.03205		0	4135.020621	1.378340207
19	35	369.306088		0	4504.326709	1.501442236
20	0	0		0	4504.326709	1.501442236
21	0	0		0	4504.326709	1.501442236
22	0	0		0	4504.326709	1.501442236
23	0	0		18	4486.326709	1.495442236
24	0	0		18	4468.326709	1.489442236
25	0	0		18	4450.326709	1.483442236
26	0	0		18	4432.326709	1.477442236
27	0	0		18	4414.326709	1.471442236
28	53	559.234933		0	4973.561641	1.65785388
29	25	263.790063	1000	0	4237.351704	1.412450568
30	0	0		0	4237.351704	1.412450568
31	0	0		0	4237.351704	1.412450568
April						
1	30	316.548075		0	4553.899779	1.517966593
2	10	105.516025		0	4659.415804	1.553138601
3	0	0		0	4659.415804	1.553138601
4	12	126.61923		0	4786.035034	1.595345011
5	0	0		0	4786.035034	1.595345011
6	30	316.548075	1000	0	4102.583109	1.367527703
7	0	0		0	4102.583109	1.367527703
8	20	211.03205		0	4313.615159	1.43787172
9	22	232.135255	1000	0	3545.750414	1.181916805
10	0	0		0	3545.750414	1.181916805
11	0	0		0	3545.750414	1.181916805
12	0	0		18	3527.750414	1.175916805
13	12	126.61923		0	3654.369644	1.218123215
14	6	63.309615		18	3699.679259	1.23322642
15	20	211.03205		0	3910.711309	1.303570436
16	25	263.790063	1000	0	3174.501371	1.058167124
17	0	0		0	3174.501371	1.058167124
18	0	0		0	3174.501371	1.058167124
19	8	84.41282		0	3258.914191	1.08630473
20	7	73.8612175		0	3332.775409	1.110925136
21	5	52.7580125		0	3385.533421	1.12851114
22	0	0		0	3385.533421	1.12851114
23	80	844.1282	1000	0	3229.661621	1.076553874
24	0	0		0	3229.661621	1.076553874
25	0	0		0	3229.661621	1.076553874
26	0	0		0	3229.661621	1.076553874
27	0	0		18	3211.661621	1.070553874
28	5	52.7580125		0	3264.419634	1.088139878
29	0	0		0	3264.419634	1.088139878
30	0	0		0	3264.419634	1.088139878

Mei						
1	10	105.516025		0	3369.935659	1.123311886
2	0	0		0	3369.935659	1.123311886
3	0	0		0	3369.935659	1.123311886
4	0	0		0	3369.935659	1.123311886
5	0	0		18	3351.935659	1.117311886
6	0	0		18	3333.935659	1.111311886
7	0	0		18	3315.935659	1.105311886
8	0	0		18	3297.935659	1.099311886
9	20	211.03205		0	3508.967709	1.169655903
10	12	126.61923		0	3635.586939	1.211862313
11	0	0		0	3635.586939	1.211862313
12	18	189.928845		0	3825.515784	1.275171928
13	0	0		0	3825.515784	1.275171928
14	47	495.925318	1000	0	3321.441101	1.107147034
15	0	0		0	3321.441101	1.107147034
16	0	0		0	3321.441101	1.107147034
17	0	0		0	3321.441101	1.107147034
18	0	0		18	3303.441101	1.101147034
19	0	0		18	3285.441101	1.095147034
20	19	200.480448		0	3485.921549	1.16197385
21	8	84.41282		0	3570.334369	1.190111456
22	10	105.516025		0	3675.850394	1.225283465
23	12	126.61923		0	3802.469624	1.267489875
24	70	738.612175		0	4541.081799	1.513693933
25	0	0		0	4541.081799	1.513693933
26	0	0		0	4541.081799	1.513693933
27	42	443.167305		0	4984.249104	1.661416368
28	25	263.790063		0	5248.039166	1.749346389
29	0	0		0	5248.039166	1.749346389
30	0	0		0	5248.039166	1.749346389
31	0	0		0	5248.039166	1.749346389
Juni						
1	0	0		18	5230.039166	1.743346389
2	0	0		18	5212.039166	1.737346389
3	15	158.274038		0	5370.313204	1.790104401
4	0	0		0	5370.313204	1.790104401
5	0	0		0	5370.313204	1.790104401
6	25	263.790063		0	5634.103266	1.878034422
7	17	179.377243		0	5813.480509	1.937826836
8	0	0		0	5813.480509	1.937826836
9	5	52.7580125		0	5866.238521	1.95541284
10	0	0		0	5866.238521	1.95541284
11	0	0		0	5866.238521	1.95541284
12	0	0		0	5866.238521	1.95541284
13	0	0		18	5848.238521	1.94941284
14	5	52.7580125		0	5900.996534	1.966998845
15	39	411.512498		0	6312.509031	2.104169677
16	0	0		0	6312.509031	2.104169677
17	0	0		0	6312.509031	2.104169677
18	52	548.68333		0	6861.192361	2.28706412
19	0	0		0	6861.192361	2.28706412
20	0	0		0	6861.192361	2.28706412
21	0	0		0	6861.192361	2.28706412
22	0	0		18	6843.192361	2.28106412
23	0	0		18	6825.192361	2.27506412
24	0	0		18	6807.192361	2.26906412
25	0	0		0	6807.192361	2.26906412
26	8	84.41282		0	6891.605181	2.297201727
27	15	158.274038		0	7049.879219	2.34995974
28	41	432.615703		0	7482.494921	2.494164974
29	0	0		0	7482.494921	2.494164974
30	0	0		0	7482.494921	2.494164974
Juli						
1	0	0		0	7482.494921	2.494164974
2	0	0		18	7464.494921	2.488164974
3	65	685.854163		0	8150.349084	2.716783028
4	0	0		0	8150.349084	2.716783028
5	0	0		0	8150.349084	2.716783028
6	0	0		0	8150.349084	2.716783028
7	0	0		18	8132.349084	2.710783028
8	0	0		18	8114.349084	2.704783028
9	0	0		18	8096.349084	2.698783028
10	0	0		18	8078.349084	2.692783028



11	0	0		18	8060.349084	2.686783028
12	0	0		18	8042.349084	2.680783028
13	0	0		18	8024.349084	2.674783028
14	0	0		18	8006.349084	2.668783028
15	0	0		18	7988.349084	2.662783028
16	0	0		18	7970.349084	2.656783028
17	0	0		18	7952.349084	2.650783028
18	0	0		18	7934.349084	2.644783028
19	0	0		18	7916.349084	2.638783028
20	0	0		18	7898.349084	2.632783028
21	0	0		18	7880.349084	2.626783028
22	7	73.8612175		0	7954.210301	2.651403434
23	0	0		0	7954.210301	2.651403434
24	0	0		0	7954.210301	2.651403434
25	0	0		0	7954.210301	2.651403434
26	0	0		18	7936.210301	2.645403434
27	0	0		18	7918.210301	2.639403434
28	0	0		18	7900.210301	2.633403434
29	0	0		18	7882.210301	2.627403434
30	0	0		18	7864.210301	2.621403434
31	0	0		18	7846.210301	2.615403434
Agustus						
1	0	0		18	7828.210301	2.609403434
2	0	0		18	7810.210301	2.603403434
3	0	0		18	7792.210301	2.597403434
4	0	0		18	7774.210301	2.591403434
5	0	0		18	7756.210301	2.585403434
6	0	0		18	7738.210301	2.579403434
7	0	0		18	7720.210301	2.573403434
8	0	0		18	7702.210301	2.567403434
9	0	0		18	7684.210301	2.561403434
10	0	0		18	7666.210301	2.555403434
11	0	0		18	7648.210301	2.549403434
12	0	0		18	7630.210301	2.543403434
13	0	0		18	7612.210301	2.537403434
14	0	0		18	7594.210301	2.531403434
15	0	0		18	7576.210301	2.525403434
16	0	0		18	7558.210301	2.519403434
17	0	0		18	7540.210301	2.513403434
18	0	0		18	7522.210301	2.507403434
19	0	0		18	7504.210301	2.501403434
20	0	0		18	7486.210301	2.495403434
21	0	0		18	7468.210301	2.489403434
22	0	0		18	7450.210301	2.483403434
23	0	0		18	7432.210301	2.477403434
24	0	0		18	7414.210301	2.471403434
25	0	0		18	7396.210301	2.465403434
26	0	0		18	7378.210301	2.459403434
27	0	0		18	7360.210301	2.453403434
28	0	0		18	7342.210301	2.447403434
29	0	0		18	7324.210301	2.441403434
30	0	0		18	7306.210301	2.435403434
31	0	0		18	7288.210301	2.429403434

September						
1	0	0		18	7270.210301	2.423403434
2	0	0		18	7252.210301	2.417403434
3	0	0		18	7234.210301	2.411403434
4	0	0		18	7216.210301	2.405403434
5	0	0		18	7198.210301	2.399403434
6	0	0		18	7180.210301	2.393403434
7	0	0		18	7162.210301	2.387403434
8	0	0		18	7144.210301	2.381403434
9	0	0		18	7126.210301	2.375403434
10	0	0		18	7108.210301	2.369403434
11	0	0		18	7090.210301	2.363403434
12	0	0		18	7072.210301	2.357403434
13	0	0		18	7054.210301	2.351403434
14	0	0		18	7036.210301	2.345403434
15	0	0		18	7018.210301	2.339403434
16	0	0		18	7000.210301	2.333403434
17	0	0		18	6982.210301	2.327403434
18	0	0		18	6964.210301	2.321403434
19	0	0		18	6946.210301	2.315403434
20	0	0		18	6928.210301	2.309403434
21	0	0		18	6910.210301	2.303403434
22	0	0		18	6892.210301	2.297403434
23	0	0		18	6874.210301	2.291403434
24	0	0		18	6856.210301	2.285403434
25	0	0		18	6838.210301	2.279403434
26	0	0		18	6820.210301	2.273403434
27	0	0		18	6802.210301	2.267403434
28	0	0		18	6784.210301	2.261403434
29	0	0		18	6766.210301	2.255403434
30	0	0		18	6748.210301	2.249403434
Oktober						
1	0	0		18	6730.210301	2.243403434
2	0	0		18	6712.210301	2.237403434
3	0	0		18	6694.210301	2.231403434
4	0	0		18	6676.210301	2.225403434
5	0	0		18	6658.210301	2.219403434
6	0	0		18	6640.210301	2.213403434
7	0	0		18	6622.210301	2.207403434
8	0	0		18	6604.210301	2.201403434
9	0	0		18	6586.210301	2.195403434
10	0	0		18	6568.210301	2.189403434
11	0	0		18	6550.210301	2.183403434
12	0	0		18	6532.210301	2.177403434
13	0	0		18	6514.210301	2.171403434
14	0	0		18	6496.210301	2.165403434
15	0	0		18	6478.210301	2.159403434
16	0	0		18	6460.210301	2.153403434
17	0	0		18	6442.210301	2.147403434
18	0	0		18	6424.210301	2.141403434
19	0	0		18	6406.210301	2.135403434
20	0	0		18	6388.210301	2.129403434
21	0	0		18	6370.210301	2.123403434
22	0	0		18	6352.210301	2.117403434
23	0	0		18	6334.210301	2.111403434
24	0	0		18	6316.210301	2.105403434
25	0	0		18	6298.210301	2.099403434
26	0	0		18	6280.210301	2.093403434
27	0	0		18	6262.210301	2.087403434
28	0	0		18	6244.210301	2.081403434
29	0	0		18	6226.210301	2.075403434
30	0	0		18	6208.210301	2.069403434
31	0	0		18	6190.210301	2.063403434
November						
1	0	0		18	6172.210301	2.057403434
2	0	0		18	6154.210301	2.051403434
3	0	0		18	6136.210301	2.045403434
4	0	0		18	6118.210301	2.039403434
5	0	0		18	6100.210301	2.033403434
6	0	0		18	6082.210301	2.027403434
7	0	0		18	6064.210301	2.021403434
8	0	0		18	6046.210301	2.015403434
9	0	0		18	6028.210301	2.009403434
10	0	0		18	6010.210301	2.003403434

11	0	0		18	5992.210301	1.997403434
12	0	0		18	5974.210301	1.991403434
13	0	0		18	5956.210301	1.985403434
14	0	0		18	5938.210301	1.979403434
15	5	52.7580125		0	5990.968314	1.996989438
16	10	105.516025		0	6096.484339	2.032161446
17	5	52.7580125		0	6149.242351	2.04974745
18	0	0		0	6149.242351	2.04974745
19	0	0		0	6149.242351	2.04974745
20	15	158.274038		0	6307.516389	2.102505463
21	0	0		0	6307.516389	2.102505463
22	10	105.516025		0	6413.032414	2.137677471
23	0	0		0	6413.032414	2.137677471
24	0	0		0	6413.032414	2.137677471
25	7	73.8612175		0	6486.893631	2.162297877
26	30	316.548075		0	6803.441706	2.267813902
27	0	0		0	6803.441706	2.267813902
28	15	158.274038		0	6961.715744	2.320571915
29	20	211.03205		0	7172.747794	2.390915931
30	0	0		0	7172.747794	2.390915931
Desember						
1	0	0		0	7172.747794	2.390915931
2	15	158.274038		0	7331.021831	2.443673944
3	0	0		0	7331.021831	2.443673944
4	0	0		0	7331.021831	2.443673944
5	31	327.099678		0	7658.121509	2.55270717
6	10	105.516025		0	7763.637534	2.587879178
7	0	0		0	7763.637534	2.587879178
8	25	263.790063		0	8027.427596	2.675809199
9	6	63.309615		0	8090.737211	2.696912404
10	5	52.7580125		0	8143.495224	2.714498408
11	10	105.516025		0	8249.011249	2.749670416
12	15	158.274038		0	8407.285286	2.802428429
13	20	211.03205		0	8618.317336	2.872772445
14	40	422.0641	1000	0	8040.381436	2.680127145
15	20	211.03205	1000	0	7251.413486	2.417137829
16	62	654.199355	1000	0	6905.612841	2.301870947
17	30	316.548075	1000	0	6222.160916	2.074053639
18	0	0		0	6222.160916	2.074053639
19	0	0		0	6222.160916	2.074053639
20	0	0		0	6222.160916	2.074053639
21	0	0		18	6204.160916	2.068053639
22	0	0		18	6186.160916	2.062053639
23	0	0		18	6168.160916	2.056053639
24	0	0		18	6150.160916	2.050053639
25	0	0		18	6132.160916	2.044053639
26	0	0		18	6114.160916	2.038053639
27	0	0		18	6096.160916	2.032053639
28	0	0		18	6078.160916	2.026053639
29	0	0		18	6060.160916	2.020053639
30	0	0		18	6042.160916	2.014053639
31	0	0		18	6024.160916	2.008053639

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3 )	tinggi air (m)
1	4.8	56.313583		0	5304.36996	2.121747984
2	10	117.31997		0	5421.689925	2.16867597
3	36.5	428.21787		0	5849.907797	2.339963119
4	0	0		0	5849.907797	2.339963119
5	22	258.10392		0	6108.01172	2.443204688
6	7	82.123976		0	6190.135695	2.476054278
7	0	0		0	6190.135695	2.476054278
8	0	0		0	6190.135695	2.476054278
9	22.3	261.62352		0	6451.759217	2.580703687
10	16	187.71194		0	6639.471161	2.655788465
11	15	175.97995		0	6815.451109	2.726180444
12	53	621.79581		0	7437.246923	2.974898769
13	27	316.76391	1200	0	6554.010829	2.621604332
14	12	140.78396		0	6694.794787	2.677917915
15	25	293.29991	1200	0	5788.094699	2.31523788
16	0	0		0	5788.094699	2.31523788
17	0	0		0	5788.094699	2.31523788
18	0	0		0	5788.094699	2.31523788
19	2	23.463993		0	5811.558692	2.324623477
20	10	117.31997		0	5928.878657	2.371551463
21	0	0		0	5928.878657	2.371551463
22	0	0		0	5928.878657	2.371551463
23	7.7	90.336373		0	6019.21503	2.407686012
24	0	0		0	6019.21503	2.407686012
25	44	516.20785		0	6535.422876	2.614169151
26	0	0		0	6535.422876	2.614169151
27	0	0		0	6535.422876	2.614169151
28	7	82.123976		0	6617.546852	2.647018741
29	0	0		0	6617.546852	2.647018741
30	102	1196.6636	1200	0	6614.210495	2.645684198
31	54	633.52781		0	7247.738306	2.899095322
Februari						
1	4	46.927986		0	7294.666292	2.917866517
2	0	0		0	7294.666292	2.917866517
3	8.2	96.202371		0	7390.868663	2.956347465
4	40	469.27986	1200	0	6660.148523	2.664059409
5	9	105.58797		0	6765.736492	2.706294597
6	0.9	10.558797		0	6776.295288	2.710518115
7	3.5	41.061988		0	6817.357276	2.72694291
8	0	0		0	6817.357276	2.72694291
9	4.7	55.140384		0	6872.49766	2.748999064
10	16.2	190.05834		0	7062.556003	2.825022401
11	1	11.731997		0	7074.288	2.8297152
12	0	0		0	7074.288	2.8297152
13	0	0		0	7074.288	2.8297152
14	60	703.91979	1200	0	6578.20779	2.631283116
15	27.5	322.6299	1200	0	5700.837693	2.280335077
16	0	0		0	5700.837693	2.280335077
17	11.4	133.74476		0	5834.582453	2.33832981
18	1	11.731997		0	5846.31445	2.33852578
19	12.3	144.30356		0	5990.618007	2.396247203
20	0	0		0	5990.618007	2.396247203
21	0	0		0	5990.618007	2.396247203
22	2	23.463993		0	6014.082	2.4056328
23	0	0		0	6014.082	2.4056328
24	0	0		0	6014.082	2.4056328
25	1.1	12.905196		0	6026.987196	2.410794878
26	2	23.463993		0	6050.451189	2.420180476
27	2.1	24.637193		0	6075.088382	2.430035353
28	0	0		0	6075.088382	2.430035353
Maret						
1	0	0		0	6075.088382	2.430035353
2	8	93.855972		0	6168.944354	2.467577741
3	0	0		0	6168.944354	2.467577741
4	42	492.74385		0	6661.688207	2.664675283
5	0	0		0	6661.688207	2.664675283
6	0.9	10.558797		0	6672.247003	2.668898801
7	5.5	64.525981		0	6736.772984	2.694709194
8	15	175.97995		0	6912.752932	2.765101173
9	7	82.123976		0	6994.876907	2.797950763

10	5	58.659983		0	7053.53689	2.821414756
11	35	410.61988	1200	0	6264.156767	2.505662707
12	0	0		0	6264.156767	2.505662707
13	0	0		0	6264.156767	2.505662707
14	0	0		0	6264.156767	2.505662707
15	0	0		18	6246.156767	2.498462707
16	20	234.63993		0	6480.796697	2.592318679
17	0	0		0	6480.796697	2.592318679
18	0	0		0	6480.796697	2.592318679
19	0	0		0	6480.796697	2.592318679
20	0	0		18	6462.796697	2.585118679
21	23	269.83592		0	6732.632617	2.693053047
22	20	234.63993		0	6967.272547	2.786909019
23	0	0		0	6967.272547	2.786909019
24	0	0		0	6967.272547	2.786909019
25	0	0		0	6967.272547	2.786909019
26	20	234.63993		0	7201.912477	2.880764991
27	0	0		0	7201.912477	2.880764991
28	0	0		0	7201.912477	2.880764991
29	0	0		0	7201.912477	2.880764991
30	0	0		18	7183.912477	2.873564991
31	0	0		18	7165.912477	2.866364991
April						
1	0	0		18	7147.912477	2.859164991
2	0	0		18	7129.912477	2.851964991
3	0	0		18	7111.912477	2.844764991
4	0	0		18	7093.912477	2.837564991
5	0	0		18	7075.912477	2.830364991
6	15	175.97995		0	7251.892424	2.90075697
7	0	0		0	7251.892424	2.90075697
8	0	0		0	7251.892424	2.90075697
9	7	82.123976		0	7334.0164	2.93360656
10	0	0		0	7334.0164	2.93360656
11	9	105.58797		0	7439.604368	2.975841747
12	0	0		0	7439.604368	2.975841747
13	20	234.63993	1200	0	6474.244298	2.589697719
14	0	0		0	6474.244298	2.589697719
15	0	0		0	6474.244298	2.589697719
16	0	0		0	6474.244298	2.589697719
17	0	0		18	6456.244298	2.582497719
18	0	0		18	6438.244298	2.575297719
19	0	0		18	6420.244298	2.568097719
20	0	0		18	6402.244298	2.560897719
21	0	0		18	6384.244298	2.553697719
22	0	0		18	6366.244298	2.546497719
23	0	0		18	6348.244298	2.539297719
24	0	0		18	6330.244298	2.532097719
25	0	0		18	6312.244298	2.524897719
26	0	0		18	6294.244298	2.517697719
27	0	0		18	6276.244298	2.510497719
28	0	0		18	6258.244298	2.503297719
29	0	0		18	6240.244298	2.496097719
30	32	375.42389		0	6615.668186	2.646267275

Mei						
1	0	0		0	6615.668186	2.646267275
2	30	351.9599		0	6967.628081	2.787051233
3	0	0		0	6967.628081	2.787051233
4	0	0		0	6967.628081	2.787051233
5	25	293.29991		0	7260.927994	2.904371198
6	0	0		0	7260.927994	2.904371198
7	25	293.29991	1200	0	6354.227906	2.541691163
8	14	164.24795		0	6518.475857	2.607390343
9	0	0		0	6518.475857	2.607390343
10	0	0		0	6518.475857	2.607390343
11	3	35.19599		0	6553.671847	2.621468739
12	0	0		0	6553.671847	2.621468739
13	0	0		0	6553.671847	2.621468739
14	0	0		0	6553.671847	2.621468739
15	0	0		18	6535.671847	2.614268739
16	0	0		18	6517.671847	2.607068739
17	0	0		18	6499.671847	2.599868739
18	0	0		18	6481.671847	2.592668739
19	0	0		18	6463.671847	2.585468739
20	0	0		18	6445.671847	2.578268739
21	0	0		18	6427.671847	2.571068739
22	0	0		18	6409.671847	2.563868739
23	0	0		18	6391.671847	2.556668739
24	0	0		18	6373.671847	2.549468739
25	0	0		18	6355.671847	2.542268739
26	0	0		18	6337.671847	2.535068739
27	0	0		18	6319.671847	2.527868739
28	0	0		18	6301.671847	2.520668739
29	0	0		18	6283.671847	2.513468739
30	0	0		18	6265.671847	2.506268739
31	0	0		18	6247.671847	2.499068739
Juni						
1	0	0		18	6229.671847	2.491868739
2	0	0		18	6211.671847	2.484668739
3	0	0		18	6193.671847	2.477468739
4	0	0		18	6175.671847	2.470268739
5	0	0		18	6157.671847	2.463068739
6	0	0		18	6139.671847	2.455868739
7	0	0		18	6121.671847	2.448668739
8	12	140.78396		0	6262.455805	2.504982322
9	0	0		0	6262.455805	2.504982322
10	0	0		0	6262.455805	2.504982322
11	0	0		0	6262.455805	2.504982322
12	2	23.463993		0	6285.919798	2.514367919
13	0	0		0	6285.919798	2.514367919
14	0	0		0	6285.919798	2.514367919
15	0	0		0	6285.919798	2.514367919
16	0	0		18	6267.919798	2.507167919
17	0	0		18	6249.919798	2.499967919
18	3	35.19599		0	6285.115787	2.514046315
19	10	117.31997		0	6402.435752	2.560974301
20	10	117.31997		0	6519.755717	2.607902287
21	0	0		0	6519.755717	2.607902287
22	4	46.927986		0	6566.683703	2.626673481
23	0	0		0	6566.683703	2.626673481
24	0	0		0	6566.683703	2.626673481
25	0	0		0	6566.683703	2.626673481
26	0	0		18	6548.683703	2.619473481
27	0	0		18	6530.683703	2.612273481
28	0	0		18	6512.683703	2.605073481
29	0	0		18	6494.683703	2.597873481
30	0	0		18	6476.683703	2.590673481
Juli						
1	0	0		18	6458.683703	2.583473481
2	0	0		18	6440.683703	2.576273481
3	0	0		18	6422.683703	2.569073481
4	0	0		18	6404.683703	2.561873481
5	0	0		18	6386.683703	2.554673481
6	0	0		18	6368.683703	2.547473481
7	0	0		18	6350.683703	2.540273481
8	0	0		18	6332.683703	2.533073481
9	0	0		18	6314.683703	2.525873481
10	0	0		18	6296.683703	2.518673481

11	0	0		18	6278.683703	2.511473481
12	0	0		18	6260.683703	2.504273481
13	0	0		18	6242.683703	2.497073481
14	0	0		18	6224.683703	2.489873481
15	0	0		18	6206.683703	2.482673481
16	0	0		18	6188.683703	2.475473481
17	0	0		18	6170.683703	2.468273481
18	0	0		18	6152.683703	2.461073481
19	0	0		18	6134.683703	2.453873481
20	0	0		18	6116.683703	2.446673481
21	0	0		18	6098.683703	2.439473481
22	0	0		18	6080.683703	2.432273481
23	0	0		18	6062.683703	2.425073481
24	0	0		18	6044.683703	2.417873481
25	0	0		18	6026.683703	2.410673481
26	0	0		18	6008.683703	2.403473481
27	0	0		18	5990.683703	2.396273481
28	0	0		18	5972.683703	2.389073481
29	0	0		18	5954.683703	2.381873481
30	0	0		18	5936.683703	2.374673481
31	0	0		18	5918.683703	2.367473481
Agustus						
1	0	0		18	5900.683703	2.360273481
2	0	0		18	5882.683703	2.353073481
3	0	0		18	5864.683703	2.345873481
4	0	0		18	5846.683703	2.338673481
5	0	0		18	5828.683703	2.331473481
6	0	0		18	5810.683703	2.324273481
7	0	0		18	5792.683703	2.317073481
8	0	0		18	5774.683703	2.309873481
9	0	0		18	5756.683703	2.302673481
10	0	0		18	5738.683703	2.295473481
11	0	0		18	5720.683703	2.288273481
12	0	0		18	5702.683703	2.281073481
13	0	0		18	5684.683703	2.273873481
14	0	0		18	5666.683703	2.266673481
15	0	0		18	5648.683703	2.259473481
16	0	0		18	5630.683703	2.252273481
17	0	0		18	5612.683703	2.245073481
18	0	0		18	5594.683703	2.237873481
19	0	0		18	5576.683703	2.230673481
20	0	0		18	5558.683703	2.223473481
21	0	0		18	5540.683703	2.216273481
22	0	0		18	5522.683703	2.209073481
23	0	0		18	5504.683703	2.201873481
24	0	0		18	5486.683703	2.194673481
25	0	0		18	5468.683703	2.187473481
26	0	0		18	5450.683703	2.180273481
27	0	0		18	5432.683703	2.173073481
28	0	0		18	5414.683703	2.165873481
29	0	0		18	5396.683703	2.158673481
30	0	0		18	5378.683703	2.151473481
31	0	0		18	5360.683703	2.144273481

September						
1	0	0		18	5342.683703	2.137073481
2	0	0		18	5324.683703	2.129873481
3	0	0		18	5306.683703	2.122673481
4	0	0		18	5288.683703	2.115473481
5	0	0		18	5270.683703	2.108273481
6	0	0		18	5252.683703	2.101073481
7	0	0		18	5234.683703	2.093873481
8	0	0		18	5216.683703	2.086673481
9	0	0		18	5198.683703	2.079473481
10	0	0		18	5180.683703	2.072273481
11	0	0		18	5162.683703	2.065073481
12	0	0		18	5144.683703	2.057873481
13	0	0		18	5126.683703	2.050673481
14	0	0		18	5108.683703	2.043473481
15	0	0		18	5090.683703	2.036273481
16	0	0		18	5072.683703	2.029073481
17	0	0		18	5054.683703	2.021873481
18	0	0		18	5036.683703	2.014673481
19	0	0		18	5018.683703	2.007473481
20	0	0		18	5000.683703	2.000273481
21	0	0		18	4982.683703	1.993073481
22	0	0		18	4964.683703	1.985873481
23	0	0		18	4946.683703	1.978673481
24	0	0		18	4928.683703	1.971473481
25	0	0		18	4910.683703	1.964273481
26	0	0		18	4892.683703	1.957073481
27	0	0		18	4874.683703	1.949873481
28	0	0		18	4856.683703	1.942673481
29	0	0		18	4838.683703	1.935473481
30	0	0		18	4820.683703	1.928273481
Oktober						
1	0	0		18	4802.683703	1.921073481
2	0	0		18	4784.683703	1.913873481
3	0	0		18	4766.683703	1.906673481
4	0	0		18	4748.683703	1.899473481
5	0	0		18	4730.683703	1.892273481
6	0	0		18	4712.683703	1.885073481
7	0	0		18	4694.683703	1.877873481
8	0	0		18	4676.683703	1.870673481
9	0	0		18	4658.683703	1.863473481
10	0	0		18	4640.683703	1.856273481
11	0	0		18	4622.683703	1.849073481
12	0	0		18	4604.683703	1.841873481
13	0	0		18	4586.683703	1.834673481
14	0	0		18	4568.683703	1.827473481
15	0	0		18	4550.683703	1.820273481
16	0	0		18	4532.683703	1.813073481
17	0	0		18	4514.683703	1.805873481
18	0	0		18	4496.683703	1.798673481
19	0	0		18	4478.683703	1.791473481
20	0	0		18	4460.683703	1.784273481
21	0	0		18	4442.683703	1.777073481
22	0	0		18	4424.683703	1.769873481
23	0	0		18	4406.683703	1.762673481
24	0	0		18	4388.683703	1.755473481
25	0	0		18	4370.683703	1.748273481
26	0	0		18	4352.683703	1.741073481
27	0	0		18	4334.683703	1.733873481
28	0	0		18	4316.683703	1.726673481
29	0	0		18	4298.683703	1.719473481
30	0	0		18	4280.683703	1.712273481
31	0	0		18	4262.683703	1.705073481
November						
1	0	0		18	4244.683703	1.697873481
2	0	0		18	4226.683703	1.690673481
3	0	0		18	4208.683703	1.683473481
4	0	0		18	4190.683703	1.676273481
5	0	0		18	4172.683703	1.669073481
6	0	0		18	4154.683703	1.661873481
7	0	0		18	4136.683703	1.654673481
8	0	0		18	4118.683703	1.647473481
9	0	0		18	4100.683703	1.640273481
10	5	58.659983		18	4141.343686	1.656537474



11	0	0		18	4123.343686	1.649337474
12	0	0		18	4105.343686	1.642137474
13	0	0		18	4087.343686	1.634937474
14	0	0		18	4069.343686	1.627737474
15	0	0		18	4051.343686	1.620537474
16	0	0		18	4033.343686	1.613337474
17	0	0		18	4015.343686	1.606137474
18	9	105.58797		0	4120.931654	1.648372662
19	0	0		0	4120.931654	1.648372662
20	0	0		0	4120.931654	1.648372662
21	0	0		0	4120.931654	1.648372662
22	0	0		18	4102.931654	1.641172662
23	0	0		18	4084.931654	1.633972662
24	0	0		18	4066.931654	1.626772662
25	0	0		18	4048.931654	1.619572662
26	0	0		18	4030.931654	1.612372662
27	0	0		18	4012.931654	1.605172662
28	0	0		18	3994.931654	1.597972662
29	0	0		18	3976.931654	1.590772662
30	0	0		18	3958.931654	1.583572662
Desenber						
1	0	0		18	3940.931654	1.576372662
2	0	0		18	3922.931654	1.569172662
3	0	0		18	3904.931654	1.561972662
4	0	0		18	3886.931654	1.554772662
5	0	0		18	3868.931654	1.547572662
6	0	0		18	3850.931654	1.540372662
7	0	0		18	3832.931654	1.533172662
8	0	0		18	3814.931654	1.525972662
9	0	0		18	3796.931654	1.518772662
10	0	0		18	3778.931654	1.511572662
11	0	0		18	3760.931654	1.504372662
12	0	0		18	3742.931654	1.497172662
13	0	0		18	3724.931654	1.489972662
14	0	0		18	3706.931654	1.482772662
15	0	0		18	3688.931654	1.475572662
16	0	0		18	3670.931654	1.468372662
17	0	0		18	3652.931654	1.461172662
18	0	0		18	3634.931654	1.453972662
19	0	0		18	3616.931654	1.446772662
20	0	0		18	3598.931654	1.439572662
21	0	0		18	3580.931654	1.432372662
22	0	0		18	3562.931654	1.425172662
23	0	0		18	3544.931654	1.417972662
24	0	0		18	3526.931654	1.410772662
25	0	0		18	3508.931654	1.403572662
26	0	0		18	3490.931654	1.396372662
27	0	0		18	3472.931654	1.389172662
28	0	0		18	3454.931654	1.381972662
29	0	0		18	3436.931654	1.374772662
30	0	0		18	3418.931654	1.367572662
31	0	0		18	3400.931654	1.360372662

**TAMAN ALUMNI ITS**

TANGGAL	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS(m3)	tinggi air (m)
Januari	R (mm)					
1	0	0		18	6006.160916	2.002053639
2	0	0		18	5988.160916	1.996053639
3	22	232.135255		0	6220.296171	2.073432057
4	65	685.854163		0	6906.150334	2.302050111
5	9	94.9644225		0	7001.114756	2.333704919
6	15	158.274038	1000	0	6159.388794	2.053129598
7	14	147.722435		0	6307.111229	2.10237041
8	0	0		0	6307.111229	2.10237041
9	0	0		0	6307.111229	2.10237041
10	15	158.274038		0	6465.385266	2.155128422
11	0	0		0	6465.385266	2.155128422
12	0	0		0	6465.385266	2.155128422
13	12	126.61923		0	6592.004496	2.197334832
14	0	0		0	6592.004496	2.197334832
15	0	0		0	6592.004496	2.197334832
16	5	52.7580125		0	6644.762509	2.214920836
17	0	0		0	6644.762509	2.214920836
18	5	52.7580125		0	6697.520521	2.23250684
19	0	0		0	6697.520521	2.23250684
20	8	84.41282		0	6781.933341	2.260644447
21	0	0		0	6781.933341	2.260644447
22	0	0		0	6781.933341	2.260644447
23	0	0		0	6781.933341	2.260644447
24	0	0		18	6763.933341	2.254644447
25	0	0		18	6745.933341	2.248644447
26	0	0		18	6727.933341	2.242644447
27	30	316.548075		0	7044.481416	2.348160472
28	6	63.309615	1000	0	6107.791031	2.035930344
29	5	52.7580125		0	6160.549044	2.053516348
30	0	0		0	6160.549044	2.053516348
31	0	0		0	6160.549044	2.053516348
Februari						
1	5	52.7580125		0	6213.307056	2.071102352
2	10	105.516025		0	6318.823081	2.10627436
3	15	158.274038	1000	0	5477.097119	1.82569904
4	0	0		0	5477.097119	1.82569904
5	0	0		0	5477.097119	1.82569904
6	0	0		0	5477.097119	1.82569904
7	0	0		18	5459.097119	1.81969904
8	0	0		18	5441.097119	1.81369904
9	0	0		18	5423.097119	1.80769904
10	5	52.7580125		0	5475.855131	1.825285044
11	0	0		0	5475.855131	1.825285044
12	10	105.516025		0	5581.371156	1.860457052
13	0	0		0	5581.371156	1.860457052
14	0	0		0	5581.371156	1.860457052
15	40	422.0641		0	6003.435256	2.001145085
16	15	158.274038		0	6161.709294	2.053903098
17	70	738.612175	1000	0	5900.321469	1.966773823
18	14	147.722435		0	6048.043904	2.016014635
19	15	158.274038		0	6206.317941	2.068772647
20	10	105.516025		0	6311.833966	2.103944655
21	40	422.0641		0	6733.898066	2.244632689
22	50	527.580125	1000	0	6261.478191	2.087159397
23	20	211.03205		0	6472.510241	2.157503414
24	0	0		0	6472.510241	2.157503414
25	0	0		0	6472.510241	2.157503414
26	8	84.41282		0	6556.923061	2.18564102
27	0	0		0	6556.923061	2.18564102
28	20	211.03205		0	6767.955111	2.255985037
Maret						
1	14	147.722435		0	6915.677546	2.305225849
2	20	211.03205		0	7126.709596	2.375569865
3	25	263.790063		0	7390.499659	2.463499886
4	30	316.548075	1000	0	6707.047734	2.235682578
5	64	675.30256	1000	0	6382.350294	2.127450098
6	18	189.928845		0	6572.279139	2.190759713
7	0	0		0	6572.279139	2.190759713
8	0	0		0	6572.279139	2.190759713
9	26	274.341665	1000	0	5846.620804	1.948873601
10	58	611.992945		0	6458.613749	2.15287125

11	12	126.61923		0	6585.232979	2.19507766
12	28	295.44487		0	6880.677849	2.293559283
13	56	590.88974	1000	0	6471.567589	2.157189196
14	67	706.957368	1000	0	6178.524956	2.059508319
15	0	0		0	6178.524956	2.059508319
16	3	31.6548075		0	6210.179764	2.070059921
17	4	42.20641		0	6252.386174	2.084128725
18	2	21.103205		0	6273.489379	2.091163126
19	10	105.516025		0	6379.005404	2.126335135
20	0	0		0	6379.005404	2.126335135
21	7	73.8612175		0	6452.866621	2.15095554
22	0	0		0	6452.866621	2.15095554
23	0	0		0	6452.866621	2.15095554
24	0	0		0	6452.866621	2.15095554
25	0	0		18	6434.866621	2.14495554
26	0	0		18	6416.866621	2.13895554
27	0	0		18	6398.866621	2.13295554
28	0	0		18	6380.866621	2.12695554
29	31	327.099678		0	6707.966299	2.235988766
30	19	200.480448		0	6908.446746	2.302815582
31	10	105.516025		0	7013.962771	2.33798759
April						
1	19	200.480448		0	7214.443219	2.404814406
2	20	211.03205		0	7425.475269	2.475158423
3	25	263.790063		0	7689.265331	2.563088444
4	30	316.548075		0	8005.813406	2.668604469
5	60	633.09615		0	8638.909556	2.879636519
6	19	200.480448		0	8839.390004	2.946463335
7	0	0		0	8839.390004	2.946463335
8	0	0		0	8839.390004	2.946463335
9	0	0		0	8839.390004	2.946463335
10	0	0		18	8821.390004	2.940463335
11	0	0		18	8803.390004	2.934463335
12	0	0		18	8785.390004	2.928463335
13	0	0		18	8767.390004	2.922463335
14	0	0		18	8749.390004	2.916463335
15	0	0		18	8731.390004	2.910463335
16	0	0		18	8713.390004	2.904463335
17	0	0		18	8695.390004	2.898463335
18	0	0		18	8677.390004	2.892463335
19	0	0		18	8659.390004	2.886463335
20	0	0		18	8641.390004	2.880463335
21	0	0		18	8623.390004	2.874463335
22	0	0		18	8605.390004	2.868463335
23	0	0		18	8587.390004	2.862463335
24	0	0		18	8569.390004	2.856463335
25	0	0		18	8551.390004	2.850463335
26	0	0		18	8533.390004	2.844463335
27	0	0		18	8515.390004	2.838463335
28	0	0		18	8497.390004	2.832463335
29	0	0		18	8479.390004	2.826463335
30	0	0		18	8461.390004	2.820463335

Mei						
1	0	0		18	8443.390004	2.814463335
2	0	0		18	8425.390004	2.808463335
3	0	0		18	8407.390004	2.802463335
4	0	0		18	8389.390004	2.796463335
5	0	0		18	8371.390004	2.790463335
6	0	0		18	8353.390004	2.784463335
7	0	0		18	8335.390004	2.778463335
8	0	0		18	8317.390004	2.772463335
9	0	0		18	8299.390004	2.766463335
10	0	0		18	8281.390004	2.760463335
11	0	0		18	8263.390004	2.754463335
12	0	0		18	8245.390004	2.748463335
13	0	0		18	8227.390004	2.742463335
14	0	0		18	8209.390004	2.736463335
15	0	0		18	8191.390004	2.730463335
16	0	0		18	8173.390004	2.724463335
17	0	0		18	8155.390004	2.718463335
18	0	0		18	8137.390004	2.712463335
19	0	0		18	8119.390004	2.706463335
20	0	0		18	8101.390004	2.700463335
21	0	0		18	8083.390004	2.694463335
22	0	0		18	8065.390004	2.688463335
23	0	0		18	8047.390004	2.682463335
24	0	0		18	8029.390004	2.676463335
25	0	0		18	8011.390004	2.670463335
26	0	0		18	7993.390004	2.664463335
27	0	0		18	7975.390004	2.658463335
28	0	0		18	7957.390004	2.652463335
29	0	0		18	7939.390004	2.646463335
30	0	0		18	7921.390004	2.640463335
31	0	0		18	7903.390004	2.634463335
Juni						
1	0	0		18	7885.390004	2.628463335
2	0	0		18	7867.390004	2.622463335
3	0	0		18	7849.390004	2.616463335
4	0	0		18	7831.390004	2.610463335
5	0	0		18	7813.390004	2.604463335
6	0	0		18	7795.390004	2.598463335
7	0	0		18	7777.390004	2.592463335
8	0	0		18	7759.390004	2.586463335
9	0	0		18	7741.390004	2.580463335
10	0	0		18	7723.390004	2.574463335
11	0	0		18	7705.390004	2.568463335
12	0	0		18	7687.390004	2.562463335
13	0	0		18	7669.390004	2.556463335
14	0	0		18	7651.390004	2.550463335
15	0	0		18	7633.390004	2.544463335
16	0	0		18	7615.390004	2.538463335
17	0	0		18	7597.390004	2.532463335
18	0	0		18	7579.390004	2.526463335
19	0	0		18	7561.390004	2.520463335
20	0	0		18	7543.390004	2.514463335
21	0	0		18	7525.390004	2.508463335
22	0	0		18	7507.390004	2.502463335
23	0	0		18	7489.390004	2.496463335
24	0	0		18	7471.390004	2.490463335
25	0	0		18	7453.390004	2.484463335
26	0	0		18	7435.390004	2.478463335
27	0	0		18	7417.390004	2.472463335
28	0	0		18	7399.390004	2.466463335
29	0	0		18	7381.390004	2.460463335
30	0	0		18	7363.390004	2.454463335
Juli						
1	0	0		18	7345.390004	2.448463335
2	0	0		18	7327.390004	2.442463335
3	0	0		18	7309.390004	2.436463335
4	0	0		18	7291.390004	2.430463335
5	0	0		18	7273.390004	2.424463335
6	0	0		18	7255.390004	2.418463335
7	0	0		18	7237.390004	2.412463335
8	0	0		18	7219.390004	2.406463335
9	0	0		18	7201.390004	2.400463335
10	0	0		18	7183.390004	2.394463335

11	0	0		18	7165.390004	2.388463335
12	0	0		18	7147.390004	2.382463335
13	0	0		18	7129.390004	2.376463335
14	0	0		18	7111.390004	2.370463335
15	0	0		18	7093.390004	2.364463335
16	0	0		18	7075.390004	2.358463335
17	0	0		18	7057.390004	2.352463335
18	0	0		18	7039.390004	2.346463335
19	0	0		18	7021.390004	2.340463335
20	0	0		18	7003.390004	2.334463335
21	0	0		18	6985.390004	2.328463335
22	0	0		18	6967.390004	2.322463335
23	0	0		18	6949.390004	2.316463335
24	0	0		18	6931.390004	2.310463335
25	0	0		18	6913.390004	2.304463335
26	0	0		18	6895.390004	2.298463335
27	0	0		18	6877.390004	2.292463335
28	0	0		18	6859.390004	2.286463335
29	0	0		18	6841.390004	2.280463335
30	0	0		18	6823.390004	2.274463335
31	0	0		18	6805.390004	2.268463335
Agustus						
1	0	0		18	6787.390004	2.262463335
2	0	0		18	6769.390004	2.256463335
3	0	0		18	6751.390004	2.250463335
4	0	0		18	6733.390004	2.244463335
5	0	0		18	6715.390004	2.238463335
6	0	0		18	6697.390004	2.232463335
7	0	0		18	6679.390004	2.226463335
8	0	0		18	6661.390004	2.220463335
9	0	0		18	6643.390004	2.214463335
10	0	0		18	6625.390004	2.208463335
11	0	0		18	6607.390004	2.202463335
12	0	0		18	6589.390004	2.196463335
13	0	0		18	6571.390004	2.190463335
14	0	0		18	6553.390004	2.184463335
15	0	0		18	6535.390004	2.178463335
16	0	0		18	6517.390004	2.172463335
17	0	0		18	6499.390004	2.166463335
18	0	0		18	6481.390004	2.160463335
19	0	0		18	6463.390004	2.154463335
20	0	0		18	6445.390004	2.148463335
21	0	0		18	6427.390004	2.142463335
22	0	0		18	6409.390004	2.136463335
23	0	0		18	6391.390004	2.130463335
24	0	0		18	6373.390004	2.124463335
25	0	0		18	6355.390004	2.118463335
26	0	0		18	6337.390004	2.112463335
27	0	0		18	6319.390004	2.106463335
28	0	0		18	6301.390004	2.100463335
29	0	0		18	6283.390004	2.094463335
30	0	0		18	6265.390004	2.088463335
31	0	0		18	6247.390004	2.082463335

September						
1	0	0		18	6229.390004	2.076463335
2	0	0		18	6211.390004	2.070463335
3	0	0		18	6193.390004	2.064463335
4	0	0		18	6175.390004	2.058463335
5	0	0		18	6157.390004	2.052463335
6	0	0		18	6139.390004	2.046463335
7	0	0		18	6121.390004	2.040463335
8	0	0		18	6103.390004	2.034463335
9	0	0		18	6085.390004	2.028463335
10	0	0		18	6067.390004	2.022463335
11	0	0		18	6049.390004	2.016463335
12	0	0		18	6031.390004	2.010463335
13	0	0		18	6013.390004	2.004463335
14	0	0		18	5995.390004	1.998463335
15	0	0		18	5977.390004	1.992463335
16	0	0		18	5959.390004	1.986463335
17	0	0		18	5941.390004	1.980463335
18	0	0		18	5923.390004	1.974463335
19	0	0		18	5905.390004	1.968463335
20	0	0		18	5887.390004	1.962463335
21	0	0		18	5869.390004	1.956463335
22	0	0		18	5851.390004	1.950463335
23	0	0		18	5833.390004	1.944463335
24	0	0		18	5815.390004	1.938463335
25	0	0		18	5797.390004	1.932463335
26	0	0		18	5779.390004	1.926463335
27	0	0		18	5761.390004	1.920463335
28	0	0		18	5743.390004	1.914463335
29	0	0		18	5725.390004	1.908463335
30	0	0		18	5707.390004	1.902463335
Oktober						
1	0	0		18	5689.390004	1.896463335
2	0	0		18	5671.390004	1.890463335
3	0	0		18	5653.390004	1.884463335
4	0	0		18	5635.390004	1.878463335
5	0	0		18	5617.390004	1.872463335
6	0	0		18	5599.390004	1.866463335
7	0	0		18	5581.390004	1.860463335
8	0	0		18	5563.390004	1.854463335
9	0	0		18	5545.390004	1.848463335
10	0	0		18	5527.390004	1.842463335
11	0	0		18	5509.390004	1.836463335
12	0	0		18	5491.390004	1.830463335
13	0	0		18	5473.390004	1.824463335
14	0	0		18	5455.390004	1.818463335
15	0	0		18	5437.390004	1.812463335
16	0	0		18	5419.390004	1.806463335
17	0	0		18	5401.390004	1.800463335
18	0	0		18	5383.390004	1.794463335
19	0	0		18	5365.390004	1.788463335
20	0	0		18	5347.390004	1.782463335
21	0	0		18	5329.390004	1.776463335
22	0	0		18	5311.390004	1.770463335
23	0	0		18	5293.390004	1.764463335
24	0	0		18	5275.390004	1.758463335
25	0	0		18	5257.390004	1.752463335
26	0	0		18	5239.390004	1.746463335
27	0	0		18	5221.390004	1.740463335
28	0	0		18	5203.390004	1.734463335
29	0	0		18	5185.390004	1.728463335
30	0	0		18	5167.390004	1.722463335
31	0	0		18	5149.390004	1.716463335
November						
1	0	0		18	5131.390004	1.710463335
2	0	0		18	5113.390004	1.704463335
3	0	0		18	5095.390004	1.698463335
4	0	0		18	5077.390004	1.692463335
5	0	0		18	5059.390004	1.686463335
6	0	0		18	5041.390004	1.680463335
7	0	0		18	5023.390004	1.674463335
8	0	0		18	5005.390004	1.668463335
9	0	0		18	4987.390004	1.662463335
10	0	0		18	4969.390004	1.656463335

11	0	0		18	4951.390004	1.650463335
12	0	0		18	4933.390004	1.644463335
13	0	0		18	4915.390004	1.638463335
14	0	0		18	4897.390004	1.632463335
15	0	0		18	4879.390004	1.626463335
16	12	126.61923		0	5006.009234	1.668669745
17	0	0		0	5006.009234	1.668669745
18	0	0		0	5006.009234	1.668669745
19	5.5	58.0338138		0	5064.043048	1.688014349
20	7	73.8612175		0	5137.904265	1.712634755
21	0	0		0	5137.904265	1.712634755
22	0	0		0	5137.904265	1.712634755
23	5	52.7580125		0	5190.662278	1.730220759
24	0	0		0	5190.662278	1.730220759
25	0	0		0	5190.662278	1.730220759
26	14	147.722435		0	5338.384713	1.779461571
27	15	158.274038		0	5496.65875	1.832219583
28	0	0		0	5496.65875	1.832219583
29	30	316.548075		0	5813.206825	1.937735608
30	1	10.5516025		0	5823.758428	1.941252809
Desember						
1	0	0		0	5823.758428	1.941252809
2	1.5	15.8274038		0	5839.585831	1.94652861
3	0	0		0	5839.585831	1.94652861
4	0	0		0	5839.585831	1.94652861
5	22	232.135255		0	6071.721086	2.023907029
6	10	105.516025		0	6177.237111	2.059079037
7	0	0		0	6177.237111	2.059079037
8	25	263.790063		0	6441.027174	2.147009058
9	6	63.309615		0	6504.336789	2.168112263
10	5	52.7580125		0	6557.094801	2.185698267
11	10	105.516025		0	6662.610826	2.220870275
12	15	158.274038		0	6820.884864	2.273628288
13	20	211.03205		0	7031.916914	2.343972305
14	40	422.0641		0	7453.981014	2.484660338
15	20	211.03205		0	7665.013064	2.555004355
16	62	654.199355		0	8319.212419	2.773070806
17	30.5	321.823876		0	8641.036295	2.880345432
18	0	0	1000	0	7641.036295	2.547012098
19	134	1413.91474	1000	0	8054.95103	2.684983677
20	0	0		0	8054.95103	2.684983677
21	13.5	142.446634	1000	0	7197.397664	2.399132555
22	6.5	68.5854163		0	7265.98308	2.42199436
23	8	84.41282		0	7350.3959	2.450131967
24	1.5	15.8274038		0	7366.223304	2.455407768
25	0	0		0	7366.223304	2.455407768
26	12.5	131.895031		0	7498.118335	2.499372778
27	23	242.686858		0	7740.805193	2.580268398
28	11	116.067628		0	7856.87282	2.618957607
29	8	84.41282		0	7941.28564	2.647095213
30	49	517.028523	1000	0	7458.314163	2.486104721
31	0	0		0	7458.314163	2.486104721

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	5	58.659983		0	3459.591637	1.383836655
2	0	0		0	3459.591637	1.383836655
3	0	0		0	3459.591637	1.383836655
4	0	0		0	3459.591637	1.383836655
5	0	0		18	3441.591637	1.376636655
6	35	410.61988		0	3852.211514	1.540884606
7	52	610.06382		0	4462.275332	1.784910133
8	9	105.58797		0	4567.863301	1.82714532
9	0	0		0	4567.863301	1.82714532
10	34	398.88788		0	4966.751182	1.986700473
11	5	58.659983		0	5025.411164	2.010164466
12	6	70.391979		0	5095.803143	2.038321257
13	0	0		0	5095.803143	2.038321257
14	0	0		0	5095.803143	2.038321257
15	0	0		0	5095.803143	2.038321257
16	0	0		18	5077.803143	2.031121257
17	0	0		18	5059.803143	2.023921257
18	0	0		18	5041.803143	2.016721257
19	0	0		18	5023.803143	2.009521257
20	0	0		18	5005.803143	2.002321257
21	0	0		18	4987.803143	1.995121257
22	0	0		18	4969.803143	1.987921257
23	0	0		18	4951.803143	1.980721257
24	0	0		18	4933.803143	1.973521257
25	0	0		18	4915.803143	1.966321257
26	0	0		18	4897.803143	1.959121257
27	6	70.391979		0	4968.195122	1.987278049
28	2	23.463993		0	4991.659115	1.996663646
29	15	175.97995		0	5167.639063	2.067055625
30	0	0		0	5167.639063	2.067055625
31	0	0		0	5167.639063	2.067055625
Februari						
1	0	0		0	5167.639063	2.067055625
2	0	0		18	5149.639063	2.059855625
3	0	0		18	5131.639063	2.052655625
4	3	35.19599		0	5166.835052	2.066734021
5	17	199.44394		0	5366.278993	2.146511597
6	0	0		0	5366.278993	2.146511597
7	0	0		0	5366.278993	2.146511597
8	0	0		0	5366.278993	2.146511597
9	9	105.58797		0	5471.866961	2.188746785
10	6	70.391979		0	5542.25894	2.216903576
11	0	0		0	5542.25894	2.216903576
12	0	0		0	5542.25894	2.216903576
13	0	0		0	5542.25894	2.216903576
14	0	0		18	5524.25894	2.209703576
15	0	0		18	5506.25894	2.202503576
16	0	0		18	5488.25894	2.195303576
17	4	46.927986		0	5535.186926	2.214074771
18	2	23.463993		0	5558.650919	2.223460368
19	0	0		0	5558.650919	2.223460368
20	0	0		0	5558.650919	2.223460368
21	0	0		0	5558.650919	2.223460368
22	30	351.9599		0	5910.610814	2.364244326
23	20	234.63993		0	6145.250744	2.458100298
24	35	410.61988		0	6555.870622	2.622348249
25	41	481.01186		0	7036.882478	2.814752991
26	37	434.08387		0	7470.966349	2.98838654
27	0	0		0	7470.966349	2.98838654
28	10	117.31997	1200	0	6388.286314	2.555314526
Maret						
1	12	140.78396		0	6529.070272	2.611628109
2	31	363.69189	1200	0	5692.762163	2.277104865
3	35	410.61988		0	6103.382041	2.441352816
4	35	410.61988		0	6514.001918	2.605600767
5	39	457.54786		0	6971.549782	2.788619913
6	0	0		0	6971.549782	2.788619913
7	13	152.51595		0	7124.065736	2.849626295
8	0	0		0	7124.065736	2.849626295
9	11	129.05196	1200	0	6053.117698	2.421247079



10	24	281.56792		0	6334.685614	2.533874246
11	53	621.79581		0	6956.481428	2.782592571
12	0	0		0	6956.481428	2.782592571
13	31	363.69189		0	7320.17332	2.928069328
14	37	434.08387	1200	0	6554.25719	2.621702876
15	42	492.74385		18	7029.001043	2.811600417
16	0	0		0	7029.001043	2.811600417
17	0	0		0	7029.001043	2.811600417
18	15	175.97995		0	7204.980991	2.881992396
19	20	234.63993		0	7439.620921	2.975848368
20	0	0		18	7421.620921	2.968648368
21	15	175.97995	1200	0	6397.600868	2.559040347
22	0	0		0	6397.600868	2.559040347
23	0	0		0	6397.600868	2.559040347
24	0	0		0	6397.600868	2.559040347
25	0	0		18	6379.600868	2.551840347
26	0	0		18	6361.600868	2.544640347
27	0	0		18	6343.600868	2.537440347
28	20	234.63993		0	6578.240798	2.631296319
29	0	0		0	6578.240798	2.631296319
30	15	175.97995	1200	0	5554.220746	2.221688298
31	0	0		0	5554.220746	2.221688298
April						
1	0	0		0	5554.220746	2.221688298
2	0	0		0	5554.220746	2.221688298
3	0	0		18	5536.220746	2.214488298
4	0	0		18	5518.220746	2.207288298
5	0	0		18	5500.220746	2.200088298
6	0	0		18	5482.220746	2.192888298
7	0	0		18	5464.220746	2.185688298
8	0	0		18	5446.220746	2.178488298
9	0	0		18	5428.220746	2.171288298
10	4	46.927986		0	5475.148732	2.190059493
11	0	0		0	5475.148732	2.190059493
12	0	0		0	5475.148732	2.190059493
13	9	105.58797		0	5580.7367	2.23229468
14	0	0		0	5580.7367	2.23229468
15	0	0		0	5580.7367	2.23229468
16	0	0		0	5580.7367	2.23229468
17	0	0		18	5562.7367	2.22509468
18	0	0		18	5544.7367	2.21789468
19	0	0		18	5526.7367	2.21069468
20	0	0		18	5508.7367	2.20349468
21	0	0		18	5490.7367	2.19629468
22	0	0		18	5472.7367	2.18909468
23	0	0		18	5454.7367	2.18189468
24	0	0		18	5436.7367	2.17469468
25	0	0		18	5418.7367	2.16749468
26	21	246.37193		0	5665.108627	2.266043451
27	0	0		0	5665.108627	2.266043451
28	0	0		0	5665.108627	2.266043451
29	0	0		0	5665.108627	2.266043451
30	0	0		18	5647.108627	2.258843451

Mei						
1	0	0		18	5629.108627	2.251643451
2	0	0		18	5611.108627	2.244443451
3	0	0		18	5593.108627	2.237243451
4	0	0		18	5575.108627	2.230043451
5	0	0		18	5557.108627	2.222843451
6	0	0		18	5539.108627	2.215643451
7	0	0		18	5521.108627	2.208443451
8	0	0		18	5503.108627	2.201243451
9	0	0		18	5485.108627	2.194043451
10	0	0		18	5467.108627	2.186843451
11	0	0		18	5449.108627	2.179643451
12	0	0		18	5431.108627	2.172443451
13	0	0		18	5413.108627	2.165243451
14	0	0		18	5395.108627	2.158043451
15	0	0		18	5377.108627	2.150843451
16	12	140.78396		0	5517.892585	2.207157034
17	36	422.35187		0	5940.244459	2.376097784
18	0	0		0	5940.244459	2.376097784
19	0	0		0	5940.244459	2.376097784
20	0	0		0	5940.244459	2.376097784
21	0	0		18	5922.244459	2.368897784
22	0	0		18	5904.244459	2.361697784
23	0	0		18	5886.244459	2.354497784
24	0	0		18	5868.244459	2.347297784
25	0	0		18	5850.244459	2.340097784
26	9	105.58797		0	5955.832427	2.382332971
27	0	0		0	5955.832427	2.382332971
28	0	0		0	5955.832427	2.382332971
29	0	0		0	5955.832427	2.382332971
30	7	82.123976		0	6037.956403	2.415182561
31	0	0		0	6037.956403	2.415182561
Juni						
1	0	0		0	6037.956403	2.415182561
2	0	0		0	6037.956403	2.415182561
3	0	0		18	6019.956403	2.407982561
4	0	0		18	6001.956403	2.400782561
5	0	0		18	5983.956403	2.393582561
6	0	0		18	5965.956403	2.386382561
7	0	0		18	5947.956403	2.379182561
8	0	0		18	5929.956403	2.371982561
9	0	0		18	5911.956403	2.364782561
10	0	0		18	5893.956403	2.357582561
11	45	527.93984		18	6403.896245	2.561558498
12	0	0		18	6385.896245	2.554358498
13	0	0		18	6367.896245	2.547158498
14	0	0		18	6349.896245	2.539958498
15	0	0		18	6331.896245	2.532758498
16	0	0		18	6313.896245	2.525558498
17	0	0		18	6295.896245	2.518358498
18	0	0		18	6277.896245	2.511158498
19	0	0		18	6259.896245	2.503958498
20	0	0		18	6241.896245	2.496758498
21	0	0		18	6223.896245	2.489558498
22	0	0		18	6205.896245	2.482358498
23	0	0		18	6187.896245	2.475158498
24	0	0		18	6169.896245	2.467958498
25	0	0		18	6151.896245	2.460758498
26	0	0		18	6133.896245	2.453558498
27	0	0		18	6115.896245	2.446358498
28	0	0		18	6097.896245	2.439158498
29	0	0		18	6079.896245	2.431958498
30	0	0		18	6061.896245	2.424758498
Juli						
1	0	0		18	6043.896245	2.417558498
2	0	0		18	6025.896245	2.410358498
3	0	0		18	6007.896245	2.403158498
4	0	0		18	5989.896245	2.395958498
5	0	0		18	5971.896245	2.388758498
6	0	0		18	5953.896245	2.381558498
7	0	0		18	5935.896245	2.374358498
8	0	0		18	5917.896245	2.367158498
9	0	0		18	5899.896245	2.359958498
10	0	0		18	5881.896245	2.352758498

11	0	0		18	5863.896245	2.345558498
12	0	0		18	5845.896245	2.338358498
13	0	0		18	5827.896245	2.331158498
14	0	0		18	5809.896245	2.323958498
15	0	0		18	5791.896245	2.316758498
16	0	0		18	5773.896245	2.309558498
17	0	0		18	5755.896245	2.302358498
18	0	0		18	5737.896245	2.295158498
19	0	0		18	5719.896245	2.287958498
20	0	0		18	5701.896245	2.280758498
21	0	0		18	5683.896245	2.273558498
22	0	0		18	5665.896245	2.266358498
23	0	0		18	5647.896245	2.259158498
24	0	0		18	5629.896245	2.251958498
25	0	0		18	5611.896245	2.244758498
26	0	0		18	5593.896245	2.237558498
27	0	0		18	5575.896245	2.230358498
28	0	0		18	5557.896245	2.223158498
29	0	0		18	5539.896245	2.215958498
30	0	0		18	5521.896245	2.208758498
31	0	0		18	5503.896245	2.201558498
Agustus						
1	0	0		18	5485.896245	2.194358498
2	0	0		18	5467.896245	2.187158498
3	0	0		18	5449.896245	2.179958498
4	0	0		18	5431.896245	2.172758498
5	0	0		18	5413.896245	2.165558498
6	0	0		18	5395.896245	2.158358498
7	0	0		18	5377.896245	2.151158498
8	0	0		18	5359.896245	2.143958498
9	0	0		18	5341.896245	2.136758498
10	0	0		18	5323.896245	2.129558498
11	0	0		18	5305.896245	2.122358498
12	0	0		18	5287.896245	2.115158498
13	0	0		18	5269.896245	2.107958498
14	0	0		18	5251.896245	2.100758498
15	0	0		18	5233.896245	2.093558498
16	0	0		18	5215.896245	2.086358498
17	0	0		18	5197.896245	2.079158498
18	0	0		18	5179.896245	2.071958498
19	0	0		18	5161.896245	2.064758498
20	0	0		18	5143.896245	2.057558498
21	0	0		18	5125.896245	2.050358498
22	0	0		18	5107.896245	2.043158498
23	0	0		18	5089.896245	2.035958498
24	0	0		18	5071.896245	2.028758498
25	0	0		18	5053.896245	2.021558498
26	0	0		18	5035.896245	2.014358498
27	0	0		18	5017.896245	2.007158498
28	0	0		18	4999.896245	1.999958498
29	0	0		18	4981.896245	1.992758498
30	0	0		18	4963.896245	1.985558498
31	0	0		18	4945.896245	1.978358498

September						
1	0	0		18	4927.896245	1.971158498
2	0	0		18	4909.896245	1.963958498
3	0	0		18	4891.896245	1.956758498
4	0	0		18	4873.896245	1.949558498
5	0	0		18	4855.896245	1.942358498
6	0	0		18	4837.896245	1.935158498
7	0	0		18	4819.896245	1.927958498
8	0	0		18	4801.896245	1.920758498
9	0	0		18	4783.896245	1.913558498
10	0	0		18	4765.896245	1.906358498
11	0	0		18	4747.896245	1.899158498
12	0	0		18	4729.896245	1.891958498
13	0	0		18	4711.896245	1.884758498
14	0	0		18	4693.896245	1.877558498
15	0	0		18	4675.896245	1.870358498
16	0	0		18	4657.896245	1.863158498
17	0	0		18	4639.896245	1.855958498
18	0	0		18	4621.896245	1.848758498
19	0	0		18	4603.896245	1.841558498
20	0	0		18	4585.896245	1.834358498
21	0	0		18	4567.896245	1.827158498
22	0	0		18	4549.896245	1.819958498
23	0	0		18	4531.896245	1.812758498
24	0	0		18	4513.896245	1.805558498
25	0	0		18	4495.896245	1.798358498
26	0	0		18	4477.896245	1.791158498
27	0	0		18	4459.896245	1.783958498
28	0	0		18	4441.896245	1.776758498
29	0	0		18	4423.896245	1.769558498
30	0	0		18	4405.896245	1.762358498
Oktober						
1	0	0		18	4387.896245	1.755158498
2	0	0		18	4369.896245	1.747958498
3	0	0		18	4351.896245	1.740758498
4	0	0		18	4333.896245	1.733558498
5	0	0		18	4315.896245	1.726358498
6	0	0		18	4297.896245	1.719158498
7	0	0		18	4279.896245	1.711958498
8	0	0		18	4261.896245	1.704758498
9	0	0		18	4243.896245	1.697558498
10	0	0		18	4225.896245	1.690358498
11	0	0		18	4207.896245	1.683158498
12	0	0		18	4189.896245	1.675958498
13	0	0		18	4171.896245	1.668758498
14	0	0		18	4153.896245	1.661558498
15	0	0		18	4135.896245	1.654358498
16	0	0		18	4117.896245	1.647158498
17	0	0		18	4099.896245	1.639958498
18	0	0		18	4081.896245	1.632758498
19	0	0		18	4063.896245	1.625558498
20	0	0		18	4045.896245	1.618358498
21	0	0		18	4027.896245	1.611158498
22	0	0		18	4009.896245	1.603958498
23	0	0		18	3991.896245	1.596758498
24	0	0		18	3973.896245	1.589558498
25	0	0		18	3955.896245	1.582358498
26	0	0		18	3937.896245	1.575158498
27	0	0		18	3919.896245	1.567958498
28	0	0		18	3901.896245	1.560758498
29	0	0		18	3883.896245	1.553558498
30	0	0		18	3865.896245	1.546358498
31	0	0		18	3847.896245	1.539158498
November						
1	0	0		18	3829.896245	1.531958498
2	0	0		18	3811.896245	1.524758498
3	0	0		18	3793.896245	1.517558498
4	0	0		18	3775.896245	1.510358498
5	0	0		18	3757.896245	1.503158498
6	0	0		18	3739.896245	1.495958498
7	0	0		18	3721.896245	1.488758498
8	0	0		18	3703.896245	1.481558498
9	0	0		18	3685.896245	1.474358498
10	0	0		18	3667.896245	1.467158498

11	0	0		18	3649.896245	1.459958498
12	0	0		18	3631.896245	1.452758498
13	0	0		18	3613.896245	1.445558498
14	0	0		18	3595.896245	1.438358498
15	0	0		18	3577.896245	1.431158498
16	0	0		18	3559.896245	1.423958498
17	0	0		18	3541.896245	1.416758498
18	0	0		18	3523.896245	1.409558498
19	0	0		18	3505.896245	1.402358498
20	0	0		18	3487.896245	1.395158498
21	0	0		18	3469.896245	1.387958498
22	0	0		18	3451.896245	1.380758498
23	0	0		18	3433.896245	1.373558498
24	0	0		18	3415.896245	1.366358498
25	0	0		18	3397.896245	1.359158498
26	15	175.97995		0	3573.876193	1.429550477
27	43	504.47585		0	4078.352042	1.631340817
28	14	164.24795		0	4242.599993	1.697039997
29	0	0		0	4242.599993	1.697039997
30	0	0		0	4242.599993	1.697039997
Desenber						
1	0	0		0	4242.599993	1.697039997
2	10	117.31997		0	4359.919958	1.743967983
3	15	175.97995		0	4535.899906	1.814359962
4	0	0		0	4535.899906	1.814359962
5	0	0		0	4535.899906	1.814359962
6	13	152.51595		0	4688.41586	1.875366344
7	0	0		0	4688.41586	1.875366344
8	0	0		0	4688.41586	1.875366344
9	0	0		0	4688.41586	1.875366344
10	17	199.44394		0	4887.859801	1.95514392
11	0	0		0	4887.859801	1.95514392
12	17	199.44394		0	5087.303741	2.034921497
13	0	0		0	5087.303741	2.034921497
14	0	0		0	5087.303741	2.034921497
15	10	117.31997		0	5204.623706	2.081849483
16	0	0		0	5204.623706	2.081849483
17	0	0		0	5204.623706	2.081849483
18	0	0		0	5204.623706	2.081849483
19	0	0		18	5186.623706	2.074649483
20	0	0		18	5168.623706	2.067449483
21	0	0		18	5150.623706	2.060249483
22	11	129.05196		0	5279.675668	2.111870267
23	0	0		0	5279.675668	2.111870267
24	0	0		0	5279.675668	2.111870267
25	58	680.4558		0	5960.131465	2.384052586
26	0	0		0	5960.131465	2.384052586
27	0	0		0	5960.131465	2.384052586
28	0	0		0	5960.131465	2.384052586
29	40	469.27986		0	6429.411325	2.57176453
30	0	0		0	6429.411325	2.57176453
31	0	0		0	6429.411325	2.57176453

FTK ITS						
TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	43	598.94		0	9000.00	3.00
2	62	863.59	1500	0	8363.59	2.79
3	86	1197.88	1500	0	8061.47	2.69
4	0	0.00		0	8061.47	2.69
5	0	0.00		0	8061.47	2.69
6	0	0.00		0	8061.47	2.69
7	78	1086.45	1500	0	7647.92	2.55
8	0	0.00		0	7647.92	2.55
9	0	0.00		0	7647.92	2.55
10	26	362.15		0	8010.07	2.67
11	21	292.51	1500	0	6802.57	2.27
12	28	390.01		0	7192.58	2.40
13	10	139.29		0	7331.87	2.44
14	27	376.08		0	7707.95	2.57
15	0	0.00		0	7707.95	2.57
16	26	362.15		0	8070.10	2.69
17	0	0.00		0	8070.10	2.69
18	0	0.00		0	8070.10	2.69
19	0	0.00		0	8070.10	2.69
20	0	0.00		18	8052.10	2.68
21	0	0.00		18	8034.10	2.68
22	0	0.00		18	8016.10	2.67
23	0	0.00		18	7998.10	2.67
24	0	0.00		18	7980.10	2.66
25	0	0.00		18	7962.10	2.65
26	48	668.58		0	8630.68	2.88
27	0	0.00		0	8630.68	2.88
28	9	125.36	1500	0	7256.04	2.42
29	13	181.07		0	7437.11	2.48
30	0	0.00		0	7437.11	2.48
31	30	417.87		0	7854.98	2.62
Februari						
1	0	0		0	7854.978744	2.618326248
2	0	0		0	7854.978744	2.618326248
3	18	250.719		0	8105.697747	2.701899249
4	0	0		0	8105.697747	2.701899249
5	0	0		0	8105.697747	2.701899249
6	0	0		0	8105.697747	2.701899249
7	0	0		18	8087.697747	2.695899249
8	26	362.14967		0	8449.847418	2.816615806
9	47	654.65517	1500	0	7604.502593	2.534834198
10	25	348.22084	1500	0	6452.72343	2.15090781
11	0	0		0	6452.72343	2.15090781
12	0	0		0	6452.72343	2.15090781
13	0	0		0	6452.72343	2.15090781
14	58	807.87234		0	7260.595773	2.420198591
15	0	0		0	7260.595773	2.420198591
16	0	0		0	7260.595773	2.420198591
17	0	0		0	7260.595773	2.420198591
18	0	0		18	7242.595773	2.414198591
19	56	780.01468	1500	0	6522.610449	2.174203483
20	0	0		0	6522.610449	2.174203483
21	3	41.786501	1500	0	5064.39695	1.688132317
22	0	0		0	5064.39695	1.688132317
23	0	0		0	5064.39695	1.688132317
24	20	278.57667		0	5342.97362	1.780991207
25	54	752.15701	1500	0	4595.130629	1.53171021
26	38	529.29567		0	5124.426302	1.708142101
27	0	0		0	5124.426302	1.708142101
28	0	0	1500	0	3624.426302	1.208142101
Maret						
1	0	0	1500	0	2124.426302	0.7081421
2	349.36	4866.1773	1500	18	5472.603573	1.824201191
3	19	264.64784		0	5737.25141	1.912417137
4	14	195.00367		0	5932.255079	1.97741836
5	0	0		0	5932.255079	1.97741836
6	10	139.28834		0	6071.543414	2.023847805
7	0	0		0	6071.543414	2.023847805
8	0	0		0	6071.543414	2.023847805
9	0	0		0	6071.543414	2.023847805

10	0	0		18	6053.543414	2.017847805
11	0	0		18	6035.543414	2.011847805
12	0	0		18	6017.543414	2.005847805
13	37	515.36684		0	6532.910253	2.177636751
14	6	83.573001		0	6616.483254	2.205494418
15	0	0		0	6616.483254	2.205494418
16	0	0		0	6616.483254	2.205494418
17	0	0		0	6616.483254	2.205494418
18	0	0		18	6598.483254	2.199494418
19	11	153.21717	1500	0	5251.700423	1.750566808
20	8	111.43067		0	5363.131091	1.787710364
21	0	0		0	5363.131091	1.787710364
22	88	1225.7373		0	6588.868439	2.19628948
23	0	0		0	6588.868439	2.19628948
24	0	0		0	6588.868439	2.19628948
25	0	0		0	6588.868439	2.19628948
26	0	0		18	6570.868439	2.19028948
27	7	97.501835		0	6668.370273	2.222790091
28	0	0		0	6668.370273	2.222790091
29	0	0		0	6668.370273	2.222790091
30	30	417.86501	1500	0	5586.235278	1.862078426
31	0	0		0	5586.235278	1.862078426
April						
1	0	0		0	5586.235278	1.862078426
2	0	0		0	5586.235278	1.862078426
3	0	0		18	5568.235278	1.856078426
4	0	0		18	5550.235278	1.850078426
5	15	208.9325		0	5759.167781	1.919722594
6	0	0		0	5759.167781	1.919722594
7	0	0		18	5741.167781	1.913722594
8	20	278.57667		0	6019.744451	2.006581484
9	0	0		0	6019.744451	2.006581484
10	0	0		0	6019.744451	2.006581484
11	0	0		0	6019.744451	2.006581484
12	0	0		18	6001.744451	2.000581484
13	0	0		18	5983.744451	1.994581484
14	0	0		18	5965.744451	1.988581484
15	0	0		18	5947.744451	1.982581484
16	0	0		18	5929.744451	1.976581484
17	0	0		18	5911.744451	1.970581484
18	0	0		18	5893.744451	1.964581484
19	0	0		18	5875.744451	1.958581484
20	34	473.58034		0	6349.32479	2.116441597
21	0	0		0	6349.32479	2.116441597
22	25	348.22084		0	6697.545627	2.232515209
23	0	0		0	6697.545627	2.232515209
24	0	0		0	6697.545627	2.232515209
25	0	0		0	6697.545627	2.232515209
26	30	417.86501		0	7115.410632	2.371803544
27	0	0		0	7115.410632	2.371803544
28	0	0		0	7115.410632	2.371803544
29	0	0		0	7115.410632	2.371803544
30	0	0		18	7097.410632	2.365803544

Mei						
1	56	780.01468	1500	0	6377.425308	2.125808436
2	0	0		0	6377.425308	2.125808436
3	0	0		0	6377.425308	2.125808436
4	0	0		0	6377.425308	2.125808436
5	0	0		18	6359.425308	2.119808436
6	0	0		18	6341.425308	2.113808436
7	0	0		18	6323.425308	2.107808436
8	28	390.00734		0	6713.432646	2.237810882
9	0	0		0	6713.432646	2.237810882
10	0	0		0	6713.432646	2.237810882
11	0	0		0	6713.432646	2.237810882
12	0	0		18	6695.432646	2.231810882
13	0	0		18	6677.432646	2.225810882
14	0	0		18	6659.432646	2.219810882
15	5	69.644168		0	6729.076814	2.243025605
16	0	0		0	6729.076814	2.243025605
17	0	0		0	6729.076814	2.243025605
18	0	0		0	6729.076814	2.243025605
19	0	0		18	6711.076814	2.237025605
20	0	0		18	6693.076814	2.231025605
21	0	0		18	6675.076814	2.225025605
22	46	640.72634		0	7315.803155	2.438601052
23	0	0		0	7315.803155	2.438601052
24	0	0		0	7315.803155	2.438601052
25	80	1114.3067	1500	0	6930.109835	2.310036612
26	0	0		0	6930.109835	2.310036612
27	0	0		0	6930.109835	2.310036612
28	0	0		0	6930.109835	2.310036612
29	0	0		18	6912.109835	2.304036612
30	0	0		18	6894.109835	2.298036612
31	0	0		18	6876.109835	2.292036612
Juni						
1	0	0		18	6858.109835	2.286036612
2	0	0		18	6840.109835	2.280036612
3	0	0		18	6822.109835	2.274036612
4	0	0		18	6804.109835	2.268036612
5	20	278.57667		0	7082.686505	2.360895502
6	0	0		0	7082.686505	2.360895502
7	0	0		0	7082.686505	2.360895502
8	0	0		0	7082.686505	2.360895502
9	0	0		18	7064.686505	2.354895502
10	0	0		18	7046.686505	2.348895502
11	0	0		18	7028.686505	2.342895502
12	0	0		18	7010.686505	2.336895502
13	5	69.644168		0	7080.330672	2.360110224
14	0	0		0	7080.330672	2.360110224
15	0	0		0	7080.330672	2.360110224
16	0	0		0	7080.330672	2.360110224
17	0	0		18	7062.330672	2.354110224
18	0	0		0	7062.330672	2.354110224
19	0	0		18	7044.330672	2.348110224
20	0	0		18	7026.330672	2.342110224
21	0	0		18	7008.330672	2.336110224
22	0	0		18	6990.330672	2.330110224
23	0	0		18	6972.330672	2.324110224
24	0	0		18	6954.330672	2.318110224
25	0	0		18	6936.330672	2.312110224
26	0	0		18	6918.330672	2.306110224
27	0	0		18	6900.330672	2.300110224
28	0	0		18	6882.330672	2.294110224
29	0	0		18	6864.330672	2.288110224
30	0	0		18	6846.330672	2.282110224
Juli						
1	0	0		18	6828.330672	2.276110224
2	0	0		18	6810.330672	2.270110224
3	0	0		18	6792.330672	2.264110224
4	0	0		18	6774.330672	2.258110224
5	0	0		18	6756.330672	2.252110224
6	0	0		18	6738.330672	2.246110224
7	0	0		18	6720.330672	2.240110224
8	0	0		18	6702.330672	2.234110224
9	0	0		18	6684.330672	2.228110224
10	0	0		18	6666.330672	2.222110224



11	0	0		18	6648.330672	2.216110224
12	0	0		18	6630.330672	2.210110224
13	0	0		18	6612.330672	2.204110224
14	0	0		18	6594.330672	2.198110224
15	0	0		18	6576.330672	2.192110224
16	0	0		18	6558.330672	2.186110224
17	0	0		18	6540.330672	2.180110224
18	0	0		18	6522.330672	2.174110224
19	0	0		18	6504.330672	2.168110224
20	0	0		18	6486.330672	2.162110224
21	0	0		18	6468.330672	2.156110224
22	0	0		18	6450.330672	2.150110224
23	0	0		18	6432.330672	2.144110224
24	0	0		18	6414.330672	2.138110224
25	0	0		18	6396.330672	2.132110224
26	0	0		18	6378.330672	2.126110224
27	0	0		18	6360.330672	2.120110224
28	0	0		18	6342.330672	2.114110224
29	0	0		18	6324.330672	2.108110224
30	0	0		18	6306.330672	2.102110224
31	0	0		18	6288.330672	2.096110224
Agustus						
1	0	0		18	6270.330672	2.090110224
2	0	0		18	6252.330672	2.084110224
3	0	0		18	6234.330672	2.078110224
4	0	0		18	6216.330672	2.072110224
5	0	0		18	6198.330672	2.066110224
6	0	0		18	6180.330672	2.060110224
7	0	0		18	6162.330672	2.054110224
8	0	0		18	6144.330672	2.048110224
9	0	0		18	6126.330672	2.042110224
10	0	0		18	6108.330672	2.036110224
11	0	0		18	6090.330672	2.030110224
12	0	0		18	6072.330672	2.024110224
13	0	0		18	6054.330672	2.018110224
14	0	0		18	6036.330672	2.012110224
15	0	0		18	6018.330672	2.006110224
16	0	0		18	6000.330672	2.000110224
17	0	0		18	5982.330672	1.994110224
18	0	0		18	5964.330672	1.988110224
19	0	0		18	5946.330672	1.982110224
20	0	0		18	5928.330672	1.976110224
21	0	0		18	5910.330672	1.970110224
22	0	0		18	5892.330672	1.964110224
23	0	0		18	5874.330672	1.958110224
24	0	0		18	5856.330672	1.952110224
25	0	0		18	5838.330672	1.946110224
26	0	0		18	5820.330672	1.940110224
27	0	0		18	5802.330672	1.934110224
28	0	0		18	5784.330672	1.928110224
29	0	0		18	5766.330672	1.922110224
30	0	0		18	5748.330672	1.916110224
31	0	0		18	5730.330672	1.910110224

September						
1	0	0		18	5712.330672	1.904110224
2	0	0		18	5694.330672	1.898110224
3	0	0		18	5676.330672	1.892110224
4	0	0		18	5658.330672	1.886110224
5	0	0		18	5640.330672	1.880110224
6	0	0		18	5622.330672	1.874110224
7	0	0		18	5604.330672	1.868110224
8	0	0		18	5586.330672	1.862110224
9	0	0		18	5568.330672	1.856110224
10	0	0		18	5550.330672	1.850110224
11	0	0		18	5532.330672	1.844110224
12	0	0		18	5514.330672	1.838110224
13	0	0		18	5496.330672	1.832110224
14	0	0		18	5478.330672	1.826110224
15	0	0		18	5460.330672	1.820110224
16	0	0		18	5442.330672	1.814110224
17	0	0		18	5424.330672	1.808110224
18	0	0		18	5406.330672	1.802110224
19	0	0		18	5388.330672	1.796110224
20	0	0		18	5370.330672	1.790110224
21	0	0		18	5352.330672	1.784110224
22	0	0		18	5334.330672	1.778110224
23	0	0		18	5316.330672	1.772110224
24	0	0		18	5298.330672	1.766110224
25	0	0		18	5280.330672	1.760110224
26	0	0		18	5262.330672	1.754110224
27	0	0		18	5244.330672	1.748110224
28	0	0		18	5226.330672	1.742110224
29	0	0		18	5208.330672	1.736110224
30	0	0		18	5190.330672	1.730110224
Oktober						
1	0	0		18	5172.330672	1.724110224
2	0	0		18	5154.330672	1.718110224
3	0	0		18	5136.330672	1.712110224
4	0	0		18	5118.330672	1.706110224
5	0	0		18	5100.330672	1.700110224
6	0	0		18	5082.330672	1.694110224
7	0	0		18	5064.330672	1.688110224
8	0	0		18	5046.330672	1.682110224
9	0	0		18	5028.330672	1.676110224
10	0	0		18	5010.330672	1.670110224
11	0	0		18	4992.330672	1.664110224
12	0	0		18	4974.330672	1.658110224
13	0	0		18	4956.330672	1.652110224
14	0	0		18	4938.330672	1.646110224
15	0	0		18	4920.330672	1.640110224
16	0	0		18	4902.330672	1.634110224
17	0	0		18	4884.330672	1.628110224
18	3	41.786501		18	4908.117173	1.636039058
19	0	0		18	4890.117173	1.630039058
20	6	83.573001		18	4955.690174	1.651896725
21	0	0		18	4937.690174	1.645896725
22	0	0		18	4919.690174	1.639896725
23	0	0		18	4901.690174	1.633896725
24	0	0		18	4883.690174	1.627896725
25	0	0		18	4865.690174	1.621896725
26	14	195.00367		0	5060.693843	1.686897948
27	0	0		0	5060.693843	1.686897948
28	0	0		0	5060.693843	1.686897948
29	20	278.57667		0	5339.270513	1.779756838
30	29	403.93617		0	5743.206684	1.914402228
31	6	83.573001		0	5826.779685	1.942259895
November						
1	12	167.146		0	5993.925687	1.997975229
2	7	97.501835		0	6091.427522	2.030475841
3	0	0		0	6091.427522	2.030475841
4	0	0		0	6091.427522	2.030475841
5	0	0		0	6091.427522	2.030475841
6	30	417.86501		0	6509.292527	2.169764176
7	0	0		0	6509.292527	2.169764176
8	2	27.857667		0	6537.150194	2.179050065
9	5	69.644168		0	6606.794361	2.202264787
10	13	181.07484		0	6787.869197	2.262623066

11	0	0		0	6787.869197	2.262623066
12	0	0		0	6787.869197	2.262623066
13	20	278.57667		0	7066.445867	2.355481956
14	0	0		0	7066.445867	2.355481956
15	0	0		0	7066.445867	2.355481956
16	0	0		0	7066.445867	2.355481956
17	0	0		18	7048.445867	2.349481956
18	4	55.715334		0	7104.161201	2.368053734
19	0	0		0	7104.161201	2.368053734
20	0	0		0	7104.161201	2.368053734
21	10	139.28834		0	7243.449536	2.414483179
22	0	0		0	7243.449536	2.414483179
23	0	0		0	7243.449536	2.414483179
24	2	27.857667		0	7271.307203	2.423769068
25	0	0		0	7271.307203	2.423769068
26	0	0		0	7271.307203	2.423769068
27	20	278.57667		0	7549.883873	2.516627958
28	0	0	1500	0	6049.883873	2.016627958
29	0	0		0	6049.883873	2.016627958
30	0	0		0	6049.883873	2.016627958
Desember						
1	0	0		18	6031.883873	2.010627958
2	0	0		18	6013.883873	2.004627958
3	0	0		18	5995.883873	1.998627958
4	0	0		18	5977.883873	1.992627958
5	0	0		18	5959.883873	1.986627958
6	0	0		18	5941.883873	1.980627958
7	0	0		18	5923.883873	1.974627958
8	0	0		18	5905.883873	1.968627958
9	0	0		18	5887.883873	1.962627958
10	0	0		18	5869.883873	1.956627958
11	0	0		18	5851.883873	1.950627958
12	21	292.5055	1500	0	4644.389376	1.548129792
13	12	167.146		0	4811.535378	1.603845126
14	19	264.64784		0	5076.183215	1.692061072
15	0	0		0	5076.183215	1.692061072
16	0	0		0	5076.183215	1.692061072
17	35	487.50917		0	5563.692387	1.854564129
18	80	1114.3067	1500	0	5177.999067	1.725999689
19	75	1044.6625	1500	0	4722.66158	1.574220527
20	12	167.146		0	4889.807582	1.629935861
21	10	139.28834	1500	0	3529.095917	1.176365306
22	9	125.3595		0	3654.455418	1.218151806
23	0	0		0	3654.455418	1.218151806
24	0	0		0	3654.455418	1.218151806
25	0	0		0	3654.455418	1.218151806
26	0	0		18	3636.455418	1.212151806
27	32	445.72267		0	4082.17809	1.36072603
28	0	0		0	4082.17809	1.36072603
29	0	0		0	4082.17809	1.36072603
30	0	0		0	4082.17809	1.36072603
31	0	0		18	4064.17809	1.35472603

## ROBOTIKA ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	25	293.29991		0	6722.711237	2.689084495
2	0	0		0	6722.711237	2.689084495
3	0	0		0	6722.711237	2.689084495
4	50	586.59983		0	7309.311062	2.923724425
5	0	0		0	7309.311062	2.923724425
6	12	140.78396		0	7450.09502	2.980038008
7	15	175.97995	1200	0	6426.074968	2.570429987
8	10	117.31997		0	6543.394933	2.617357973
9	0	0		0	6543.394933	2.617357973
10	11	129.05196		0	6672.446894	2.668978758
11	28	328.4959		0	7000.942796	2.800377119
12	0	0		0	7000.942796	2.800377119
13	0	0		0	7000.942796	2.800377119
14	20	234.63993		0	7235.582726	2.894233091
15	10	117.31997		0	7352.902691	2.941161077
16	15	175.97995	1200	0	6328.882639	2.531553056
17	0	0		0	6328.882639	2.531553056
18	0	0		18	6310.882639	2.524353056
19	7	82.123976		18	6375.006614	2.550002646
20	6	70.391979		18	6427.398593	2.570959437
21	0	0		18	6409.398593	2.563759437
22	4	46.927986		18	6438.326579	2.575330632
23	0	0		18	6420.326579	2.568130632
24	0	0		18	6402.326579	2.560930632
25	0	0		18	6384.326579	2.553730632
26	38	445.81587	1200	0	5630.142446	2.252056979
27	5	58.659983		0	5688.802429	2.275520972
28	0	0		0	5688.802429	2.275520972
29	0	0		0	5688.802429	2.275520972
30	0	0		0	5688.802429	2.275520972
31	0	0		18	5670.802429	2.268320972
Februari						
1	0	0		18	5652.802429	2.261120972
2	0	0		18	5634.802429	2.253920972
3	28	328.4959		0	5963.298331	2.385319332
4	0	0		0	5963.298331	2.385319332
5	0	0		0	5963.298331	2.385319332
6	0	0		0	5963.298331	2.385319332
7	0	0		18	5945.298331	2.378119332
8	0	0		18	5927.298331	2.370919332
9	35	410.61988		0	6337.918208	2.535167283
10	47	551.40384		0	6889.322044	2.755728818
11	0	0		0	6889.322044	2.755728818
12	0	0		0	6889.322044	2.755728818
13	0	0		0	6889.322044	2.755728818
14	23	269.83592	1200	0	5959.157963	2.383663185
15	0	0		0	5959.157963	2.383663185
16	0	0		0	5959.157963	2.383663185
17	0	0		0	5959.157963	2.383663185
18	0	0		18	5941.157963	2.376463185
19	0	0		18	5923.157963	2.369263185
20	0	0		18	5905.157963	2.362063185
21	38	445.81587		0	6350.97383	2.540389532
22	0	0		0	6350.97383	2.540389532
23	0	0		0	6350.97383	2.540389532
24	10	117.31997		0	6468.293795	2.587317518
25	4	46.927986		0	6515.221781	2.606088713
26	0	0		0	6515.221781	2.606088713
27	0	0		0	6515.221781	2.606088713
28	0	0		0	6515.221781	2.606088713
Maret						
1	0	0		18	6497.221781	2.598888713
2	0	0		18	6479.221781	2.591688713
3	20	234.63993		0	6713.861711	2.685544685
4	26	305.03191		0	7018.89362	2.807557448
5	0	0		0	7018.89362	2.807557448
6	20	234.63993		0	7253.53355	2.90141342
7	65	762.57977	1200	0	6816.113323	2.726445329
8	78	915.09573	1200	0	6531.20905	2.61248362
9	22	258.10392	1200	0	5589.312973	2.235725189

10	16	187.71194		0	5777.024917	2.310809967
11	0	0		0	5777.024917	2.310809967
12	0	0		0	5777.024917	2.310809967
13	0	0		0	5777.024917	2.310809967
14	0	0		18	5759.024917	2.303609967
15	0	0		18	5741.024917	2.296409967
16	5	58.659983		0	5799.684899	2.31987396
17	0	0		0	5799.684899	2.31987396
18	12	140.78396		0	5940.468857	2.376187543
19	0	0		0	5940.468857	2.376187543
20	0	0		0	5940.468857	2.376187543
21	37	434.08387	1200	0	5174.552728	2.069821091
22	59	692.18779	1200	0	4666.740521	1.866696209
23	0	0		0	4666.740521	1.866696209
24	0	0		0	4666.740521	1.866696209
25	0	0		0	4666.740521	1.866696209
26	0	0		18	4648.740521	1.859496209
27	0	0		18	4630.740521	1.852296209
28	0	0		18	4612.740521	1.845096209
29	0	0		18	4594.740521	1.837896209
30	12	140.78396		0	4735.524479	1.894209792
31	0	0		0	4735.524479	1.894209792
April						
1	0	0		0	4735.524479	1.894209792
2	17	199.44394		0	4934.96842	1.973987368
3	0	0		0	4934.96842	1.973987368
4	0	0		0	4934.96842	1.973987368
5	23	269.83592	1200	0	4004.804339	1.601921736
6	0	0		0	4004.804339	1.601921736
7	0	0		0	4004.804339	1.601921736
8	0	0		0	4004.804339	1.601921736
9	0	0		18	3986.804339	1.594721736
10	0	0		18	3968.804339	1.587521736
11	15	175.97995		0	4144.784287	1.657913715
12	0	0		0	4144.784287	1.657913715
13	20	234.63993		0	4379.424217	1.751769687
14	0	0		0	4379.424217	1.751769687
15	0	0		0	4379.424217	1.751769687
16	0	0		0	4379.424217	1.751769687
17	0	0		18	4361.424217	1.744569687
18	0	0		18	4343.424217	1.737369687
19	0	0		18	4325.424217	1.730169687
20	0	0		18	4307.424217	1.722969687
21	0	0		18	4289.424217	1.715769687
22	0	0		18	4271.424217	1.708569687
23	0	0		18	4253.424217	1.701369687
24	0	0		18	4235.424217	1.694169687
25	0	0		18	4217.424217	1.686969687
26	0	0		18	4199.424217	1.679769687
27	0	0		18	4181.424217	1.672569687
28	0	0		18	4163.424217	1.665369687
29	0	0		18	4145.424217	1.658169687
30	5	58.659983		0	4204.084199	1.68163368

Mei						
1	0	0		0	4204.084199	1.68163368
2	44	516.20785		0	4720.292045	1.888116818
3	0	0		0	4720.292045	1.888116818
4	0	0		0	4720.292045	1.888116818
5	0	0		0	4720.292045	1.888116818
6	0	0		18	4702.292045	1.880916818
7	20	234.63993	1200	0	3736.931975	1.49477279
8	0	0		0	3736.931975	1.49477279
9	0	0		0	3736.931975	1.49477279
10	0	0		0	3736.931975	1.49477279
11	0	0		18	3718.931975	1.48757279
12	0	0		18	3700.931975	1.48037279
13	0	0		18	3682.931975	1.47317279
14	0	0		18	3664.931975	1.46597279
15	0	0		18	3646.931975	1.45877279
16	0	0		18	3628.931975	1.45157279
17	0	0		18	3610.931975	1.44437279
18	0	0		18	3592.931975	1.43717279
19	0	0		18	3574.931975	1.42997279
20	0	0		18	3556.931975	1.42277279
21	0	0		18	3538.931975	1.41557279
22	0	0		18	3520.931975	1.40837279
23	0	0		18	3502.931975	1.40117279
24	0	0		18	3484.931975	1.39397279
25	0	0		18	3466.931975	1.38677279
26	0	0		18	3448.931975	1.37957279
27	0	0		18	3430.931975	1.37237279
28	0	0		18	3412.931975	1.36517279
29	0	0		18	3394.931975	1.35797279
30	0	0		18	3376.931975	1.35077279
31	0	0		18	3358.931975	1.34357279
Juni						
1	0	0		18	3340.931975	1.33637279
2	0	0		18	3322.931975	1.32917279
3	0	0		18	3304.931975	1.32197279
4	0	0		18	3286.931975	1.31477279
5	15	175.97995		0	3462.911923	1.385164769
6	25	293.29991		0	3756.211835	1.502484734
7	30	351.9599		0	4108.17173	1.643268692
8	5	58.659983		0	4166.831713	1.666732685
9	0	0		0	4166.831713	1.666732685
10	0	0		0	4166.831713	1.666732685
11	0	0		0	4166.831713	1.666732685
12	0	0		18	4148.831713	1.659532685
13	0	0		18	4130.831713	1.652332685
14	0	0		18	4112.831713	1.645132685
15	8	93.855972		0	4206.687685	1.682675074
16	0	0		0	4206.687685	1.682675074
17	0	0		0	4206.687685	1.682675074
18	0	0		0	4206.687685	1.682675074
19	0	0		18	4188.687685	1.675475074
20	10	117.31997		0	4306.00765	1.72240306
21	0	0		0	4306.00765	1.72240306
22	15	175.97995		0	4481.987597	1.792795039
23	20	234.63993		0	4716.627527	1.886651011
24	0	0		0	4716.627527	1.886651011
25	0	0		0	4716.627527	1.886651011
26	0	0		0	4716.627527	1.886651011
27	0	0		18	4698.627527	1.879451011
28	0	0		18	4680.627527	1.872251011
29	0	0		18	4662.627527	1.865051011
30	0	0		18	4644.627527	1.857851011
Juli						
1	0	0		18	4626.627527	1.850651011
2	0	0		18	4608.627527	1.843451011
3	0	0		18	4590.627527	1.836251011
4	0	0		18	4572.627527	1.829051011
5	0	0		18	4554.627527	1.821851011
6	15	175.97995		0	4730.607475	1.89224299
7	0	0		0	4730.607475	1.89224299
8	0	0		0	4730.607475	1.89224299
9	0	0		0	4730.607475	1.89224299
10	0	0		18	4712.607475	1.88504299

11	20	234.63993		0	4947.247405	1.978898962
12	45	527.93984	1200	0	4275.187247	1.710074899
13	0	0		0	4275.187247	1.710074899
14	0	0		0	4275.187247	1.710074899
15	0	0		0	4275.187247	1.710074899
16	0	0		18	4257.187247	1.702874899
17	0	0		18	4239.187247	1.695674899
18	10	117.31997		0	4356.507212	1.742602885
19	0	0		0	4356.507212	1.742602885
20	0	0		0	4356.507212	1.742602885
21	0	0		0	4356.507212	1.742602885
22	0	0		18	4338.507212	1.735402885
23	0	0		18	4320.507212	1.728202885
24	0	0		18	4302.507212	1.721002885
25	0	0		18	4284.507212	1.713802885
26	0	0		18	4266.507212	1.706602885
27	0	0		18	4248.507212	1.699402885
28	0	0		18	4230.507212	1.692202885
29	0	0		18	4212.507212	1.685002885
30	0	0		18	4194.507212	1.677802885
31	0	0		18	4176.507212	1.670602885
Agustus						
1	0	0		18	4158.507212	1.663402885
2	0	0		18	4140.507212	1.656202885
3	20	234.63993		0	4375.147142	1.750058857
4	0	0		0	4375.147142	1.750058857
5	0	0		0	4375.147142	1.750058857
6	0	0		0	4375.147142	1.750058857
7	0	0		18	4357.147142	1.742858857
8	0	0		18	4339.147142	1.735658857
9	0	0		18	4321.147142	1.728458857
10	0	0		18	4303.147142	1.721258857
11	0	0		18	4285.147142	1.714058857
12	0	0		18	4267.147142	1.706858857
13	0	0		18	4249.147142	1.699658857
14	0	0		18	4231.147142	1.692458857
15	0	0		18	4213.147142	1.685258857
16	0	0		18	4195.147142	1.678058857
17	0	0		18	4177.147142	1.670858857
18	0	0		18	4159.147142	1.663658857
19	0	0		18	4141.147142	1.656458857
20	0	0		18	4123.147142	1.649258857
21	0	0		18	4105.147142	1.642058857
22	0	0		18	4087.147142	1.634858857
23	0	0		18	4069.147142	1.627658857
24	0	0		18	4051.147142	1.620458857
25	0	0		18	4033.147142	1.613258857
26	0	0		18	4015.147142	1.606058857
27	0	0		18	3997.147142	1.598858857
28	0	0		18	3979.147142	1.591658857
29	0	0		18	3961.147142	1.584458857
30	0	0		18	3943.147142	1.577258857
31	0	0		18	3925.147142	1.570058857

September						
1	0	0		18	3907.147142	1.562858857
2	0	0		18	3889.147142	1.555658857
3	0	0		18	3871.147142	1.548458857
4	0	0		18	3853.147142	1.541258857
5	0	0		18	3835.147142	1.534058857
6	0	0		18	3817.147142	1.526858857
7	0	0		18	3799.147142	1.519658857
8	0	0		18	3781.147142	1.512458857
9	0	0		18	3763.147142	1.505258857
10	0	0		18	3745.147142	1.498058857
11	0	0		18	3727.147142	1.490858857
12	0	0		18	3709.147142	1.483658857
13	0	0		18	3691.147142	1.476458857
14	0	0		18	3673.147142	1.469258857
15	0	0		18	3655.147142	1.462058857
16	0	0		18	3637.147142	1.454858857
17	0	0		18	3619.147142	1.447658857
18	0	0		18	3601.147142	1.440458857
19	0	0		18	3583.147142	1.433258857
20	0	0		18	3565.147142	1.426058857
21	0	0		18	3547.147142	1.418858857
22	0	0		18	3529.147142	1.411658857
23	0	0		18	3511.147142	1.404458857
24	0	0		18	3493.147142	1.397258857
25	0	0		18	3475.147142	1.390058857
26	0	0		18	3457.147142	1.382858857
27	0	0		18	3439.147142	1.375658857
28	0	0		18	3421.147142	1.368458857
29	0	0		18	3403.147142	1.361258857
30	0	0		18	3385.147142	1.354058857
Oktober						
1	0	0		18	3367.147142	1.346858857
2	0	0		18	3349.147142	1.339658857
3	0	0		18	3331.147142	1.332458857
4	0	0		18	3313.147142	1.325258857
5	0	0		18	3295.147142	1.318058857
6	0	0		18	3277.147142	1.310858857
7	0	0		18	3259.147142	1.303658857
8	0	0		18	3241.147142	1.296458857
9	0	0		18	3223.147142	1.289258857
10	0	0		18	3205.147142	1.282058857
11	0	0		18	3187.147142	1.274858857
12	0	0		18	3169.147142	1.267658857
13	0	0		18	3151.147142	1.260458857
14	0	0		18	3133.147142	1.253258857
15	0	0		18	3115.147142	1.246058857
16	0	0		18	3097.147142	1.238858857
17	0	0		18	3079.147142	1.231658857
18	18	211.17594		0	3290.323079	1.316129232
19	20	234.63993		0	3524.963009	1.409985204
20	0	0		0	3524.963009	1.409985204
21	0	0		0	3524.963009	1.409985204
22	0	0		0	3524.963009	1.409985204
23	10	117.31997		0	3642.282974	1.45691319
24	0	0		0	3642.282974	1.45691319
25	0	0		0	3642.282974	1.45691319
26	0	0		0	3642.282974	1.45691319
27	0	0		18	3624.282974	1.44971319
28	0	0		18	3606.282974	1.44251319
29	0	0		18	3588.282974	1.43531319
30	0	0		18	3570.282974	1.42811319
31	0	0		18	3552.282974	1.42091319
November						
1	0	0		18	3534.282974	1.41371319
2	0	0		18	3516.282974	1.40651319
3	0	0		18	3498.282974	1.39931319
4	0	0		18	3480.282974	1.39211319
5	0	0		18	3462.282974	1.38491319
6	0	0		18	3444.282974	1.37771319
7	0	0		18	3426.282974	1.37051319
8	0	0		18	3408.282974	1.36331319
9	0	0		18	3390.282974	1.35611319
10	0	0		18	3372.282974	1.34891319



11	0	0		18	3354.282974	1.34171319
12	0	0		18	3336.282974	1.33451319
13	0	0		18	3318.282974	1.32731319
14	0	0		18	3300.282974	1.32011319
15	0	0		18	3282.282974	1.31291319
16	0	0		18	3264.282974	1.30571319
17	0	0		18	3246.282974	1.29851319
18	0	0		18	3228.282974	1.29131319
19	0	0		18	3210.282974	1.28411319
20	26	305.03191		0	3515.314883	1.406125953
21	7	82.123976		0	3597.438859	1.438975544
22	0	0		0	3597.438859	1.438975544
23	0	0		0	3597.438859	1.438975544
24	0	0		0	3597.438859	1.438975544
25	0	0		18	3579.438859	1.431775544
26	0	0		18	3561.438859	1.424575544
27	0	0		18	3543.438859	1.417375544
28	0	0		18	3525.438859	1.410175544
29	0	0		18	3507.438859	1.402975544
30	0	0		18	3489.438859	1.395775544
Desenber						
1	25	293.29991		0	3782.738771	1.513095509
2	20	234.63993		0	4017.378701	1.606951481
3	0	0		0	4017.378701	1.606951481
4	8	93.855972		0	4111.234673	1.644493869
5	0	0		0	4111.234673	1.644493869
6	0	0		0	4111.234673	1.644493869
7	26	305.03191		0	4416.266582	1.766506633
8	10	117.31997		0	4533.586547	1.813434619
9	0	0		0	4533.586547	1.813434619
10	0	0		0	4533.586547	1.813434619
11	0	0		0	4533.586547	1.813434619
12	25	293.29991		0	4826.88646	1.930754584
13	20	234.63993		0	5061.52639	2.024610556
14	0	0	1200	0	3861.52639	1.544610556
15	110	1290.5196	1200	0	3952.046005	1.580818402
16	0	0		0	3952.046005	1.580818402
17	10	117.31997		0	4069.36597	1.627746388
18	0	0		0	4069.36597	1.627746388
19	10	117.31997		0	4186.685935	1.674674374
20	5	58.659983		0	4245.345917	1.698138367
21	20	234.63993		0	4479.985847	1.791994339
22	0	0		0	4479.985847	1.791994339
23	15	175.97995		0	4655.965795	1.862386318
24	0	0		0	4655.965795	1.862386318
25	0	0		0	4655.965795	1.862386318
26	0	0		0	4655.965795	1.862386318
27	10	117.31997		0	4773.28576	1.909314304
28	0	0		0	4773.28576	1.909314304
29	0	0		0	4773.28576	1.909314304
30	0	0		0	4773.28576	1.909314304
31	0	0		18	4755.28576	1.902114304

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O	Vol O(m3)	DS(m3)	tinggi air (m)
1	20	278.57667		0	4342.75476	1.44758492
2	0	0		0	4342.75476	1.44758492
3	0	0		0	4342.75476	1.44758492
4	0	0		0	4342.75476	1.44758492
5	0	0		18	4324.75476	1.44158492
6	0	0		18	4306.75476	1.43558492
7	0	0		18	4288.75476	1.42958492
8	0	0		18	4270.75476	1.42358492
9	10	139.288335		0	4410.043095	1.470014365
10	0	0		0	4410.043095	1.470014365
11	0	0		0	4410.043095	1.470014365
12	0	0		0	4410.043095	1.470014365
13	0	0		18	4392.043095	1.464014365
14	0	0		18	4374.043095	1.458014365
15	46	640.726341		0	5014.769436	1.671589812
16	0	0		0	5014.769436	1.671589812
17	13	181.0748355		0	5195.844272	1.731948091
18	0	0		0	5195.844272	1.731948091
19	0	0		0	5195.844272	1.731948091
20	0	0		0	5195.844272	1.731948091
21	35	487.5091725	1500	0	4183.353444	1.394451148
22	49	682.5128415		0	4865.866286	1.621955429
23	4	55.715334		0	4921.58162	1.640527207
24	0	0		0	4921.58162	1.640527207
25	3	41.7865005		0	4963.36812	1.65445604
26	6	83.573001		0	5046.941121	1.682313707
27	0	0		0	5046.941121	1.682313707
28	0	0		0	5046.941121	1.682313707
29	25	348.2208375		0	5395.161959	1.79838732
30	0	0		0	5395.161959	1.79838732
31	12	167.146002		0	5562.307961	1.854102654
Februari						
1	0	0		0	5562.307961	1.854102654
2	45	626.7975075	1500	0	4689.105468	1.563035156
3	34	473.580339		0	5162.685807	1.720895269
4	0	0		0	5162.685807	1.720895269
5	0	0		0	5162.685807	1.720895269
6	0	0		0	5162.685807	1.720895269
7	50	696.441675		0	5859.127482	1.953042494
8	0	0		0	5859.127482	1.953042494
9	5	69.6441675		0	5928.77165	1.976257217
10	0	0		0	5928.77165	1.976257217
11	0	0		0	5928.77165	1.976257217
12	17	236.7901695	1500	0	4665.561819	1.555187273
13	0	0		0	4665.561819	1.555187273
14	0	0		0	4665.561819	1.555187273
15	0	0		0	4665.561819	1.555187273
16	0	0		18	4647.561819	1.549187273
17	0	0		18	4629.561819	1.543187273
18	0	0		18	4611.561819	1.537187273
19	17	236.7901695	1500	0	3348.351989	1.11611733
20	3	41.7865005		0	3390.138489	1.130046163
21	5	69.6441675		0	3459.782657	1.153260886
22	0	0		0	3459.782657	1.153260886
23	0	0		0	3459.782657	1.153260886
24	0	0		0	3459.782657	1.153260886
25	49	682.5128415		0	4142.295498	1.380765166
26	0	0		0	4142.295498	1.380765166
27	5	69.6441675		0	4211.939666	1.403979889
28	56	780.014676		0	4991.954342	1.663984781
Maret						
1	51	710.3705085	1500	0	4202.32485	1.40077495
2	82	1142.164347		0	5344.489197	1.781496399
3	6	83.573001		0	5428.062198	1.809354066
4	40	557.15334		0	5985.215538	1.995071846
5	0	0		0	5985.215538	1.995071846
6	7	97.5018345	1500	0	4582.717373	1.527572458
7	12	167.146002		0	4749.863375	1.583287792
8	0	0		0	4749.863375	1.583287792
9	0	0		0	4749.863375	1.583287792

10	8	111.430668		0	4861.294043	1.620431348
11	0	0		0	4861.294043	1.620431348
12	8	111.430668		0	4972.724711	1.657574904
13	0	0		0	4972.724711	1.657574904
14	0	0		0	4972.724711	1.657574904
15	23	320.3631705	1500	0	3793.087881	1.264362627
16	0	0		0	3793.087881	1.264362627
17	0	0		0	3793.087881	1.264362627
18	0	0		0	3793.087881	1.264362627
19	12	167.146002		0	3960.233883	1.320077961
20	33	459.6515055		0	4419.885389	1.47329513
21	0	0		0	4419.885389	1.47329513
22	36	501.438006		0	4921.323395	1.640441132
23	24	334.292004		0	5255.615399	1.7518718
24	79	1100.377847	1500	0	4855.993245	1.618664415
25	0	0		0	4855.993245	1.618664415
26	0	0		0	4855.993245	1.618664415
27	6	83.573001		0	4939.566246	1.646522082
28	26	362.149671		0	5301.715917	1.767238639
29	0	0		0	5301.715917	1.767238639
30	0	0		0	5301.715917	1.767238639
31	0	0		0	5301.715917	1.767238639
April						
1	0	0		18	5283.715917	1.761238639
2	86	1197.879681	1500	0	4981.595598	1.660531866
3	0	0		0	4981.595598	1.660531866
4	30	417.865005		0	5399.460603	1.799820201
5	0	0		0	5399.460603	1.799820201
6	0	0		0	5399.460603	1.799820201
7	39	543.2245065		0	5942.68511	1.980895037
8	4	55.715334		0	5998.400444	1.999466815
9	0	0		0	5998.400444	1.999466815
10	0	0		0	5998.400444	1.999466815
11	0	0		0	5998.400444	1.999466815
12	0	0		18	5980.400444	1.993466815
13	0	0		18	5962.400444	1.987466815
14	0	0		18	5944.400444	1.981466815
15	40	557.15334	1500	0	5001.553784	1.667184595
16	70	975.018345		0	5976.572129	1.99219071
17	89	1239.666182	1500	0	5716.23831	1.90541277
18	0	0		0	5716.23831	1.90541277
19	0	0		0	5716.23831	1.90541277
20	0	0		0	5716.23831	1.90541277
21	0	0		18	5698.23831	1.89941277
22	0	0		18	5680.23831	1.89341277
23	0	0		18	5662.23831	1.88741277
24	60	835.73001	1500	0	4997.96832	1.66598944
25	2	27.857667		0	5025.825987	1.675275329
26	0	0		0	5025.825987	1.675275329
27	0	0		0	5025.825987	1.675275329
28	0	0		0	5025.825987	1.675275329
29	0	0		18	5007.825987	1.669275329
30	0	0		18	4989.825987	1.663275329

Mei						
1	0	0		18	4971.825987	1.657275329
2	0	0		18	4953.825987	1.651275329
3	6	83.573001		0	5037.398988	1.679132996
4	0	0		0	5037.398988	1.679132996
5	0	0		0	5037.398988	1.679132996
6	0	0		0	5037.398988	1.679132996
7	0	0		18	5019.398988	1.673132996
8	0	0		18	5001.398988	1.667132996
9	0	0		18	4983.398988	1.661132996
10	0	0		18	4965.398988	1.655132996
11	0	0		18	4947.398988	1.649132996
12	0	0		18	4929.398988	1.643132996
13	0	0		18	4911.398988	1.637132996
14	0	0		18	4893.398988	1.631132996
15	0	0		18	4875.398988	1.625132996
16	0	0		18	4857.398988	1.619132996
17	0	0		18	4839.398988	1.613132996
18	0	0		18	4821.398988	1.607132996
19	0	0		18	4803.398988	1.601132996
20	0	0		18	4785.398988	1.595132996
21	0	0		18	4767.398988	1.589132996
22	0	0		18	4749.398988	1.583132996
23	0	0		18	4731.398988	1.577132996
24	0	0		18	4713.398988	1.571132996
25	0	0		18	4695.398988	1.565132996
26	23	320.3631705		0	5015.762159	1.67192072
27	0	0		0	5015.762159	1.67192072
28	0	0		0	5015.762159	1.67192072
29	0	0		0	5015.762159	1.67192072
30	0	0		18	4997.762159	1.66592072
31	0	0		18	4979.762159	1.65992072
Juni						
1	0	0		18	4961.762159	1.65392072
2	0	0		18	4943.762159	1.64792072
3	0	0		18	4925.762159	1.64192072
4	24	334.292004		0	5260.054163	1.753351388
5	0	0		0	5260.054163	1.753351388
6	0	0		0	5260.054163	1.753351388
7	6	83.573001		0	5343.627164	1.781209055
8	0	0		0	5343.627164	1.781209055
9	0	0		0	5343.627164	1.781209055
10	0	0		0	5343.627164	1.781209055
11	25	348.2208375		0	5691.848001	1.897282667
12	22	306.434337	1500	0	4498.282338	1.499427446
13	0	0		0	4498.282338	1.499427446
14	11	153.2171685		0	4651.499507	1.550499836
15	0	0		0	4651.499507	1.550499836
16	0	0		0	4651.499507	1.550499836
17	0	0		0	4651.499507	1.550499836
18	0	0		18	4633.499507	1.544499836
19	0	0		18	4615.499507	1.538499836
20	0	0		18	4597.499507	1.532499836
21	0	0		18	4579.499507	1.526499836
22	0	0		18	4561.499507	1.520499836
23	0	0		18	4543.499507	1.514499836
24	4	55.715334		0	4599.214841	1.533071614
25	0	0		0	4599.214841	1.533071614
26	0	0		0	4599.214841	1.533071614
27	0	0		0	4599.214841	1.533071614
28	0	0		18	4581.214841	1.527071614
29	0	0		18	4563.214841	1.521071614
30	0	0		18	4545.214841	1.515071614
Juli						
1	0	0		18	4527.214841	1.509071614
2	0	0		18	4509.214841	1.503071614
3	0	0		18	4491.214841	1.497071614
4	0	0		18	4473.214841	1.491071614
5	0	0		18	4455.214841	1.485071614
6	0	0		18	4437.214841	1.479071614
7	0	0		18	4419.214841	1.473071614
8	0	0		18	4401.214841	1.467071614
9	0	0		18	4383.214841	1.461071614
10	0	0		18	4365.214841	1.455071614

11	0	0		18	4347.214841	1.449071614
12	22	306.434337		0	4653.649178	1.551216393
13	42	585.011007		0	5238.660185	1.746220062
14	0	0		0	5238.660185	1.746220062
15	0	0		0	5238.660185	1.746220062
16	0	0		0	5238.660185	1.746220062
17	0	0		18	5220.660185	1.740220062
18	0	0		18	5202.660185	1.734220062
19	0	0		18	5184.660185	1.728220062
20	6	83.573001		0	5268.233186	1.756077729
21	0	0		0	5268.233186	1.756077729
22	0	0		0	5268.233186	1.756077729
23	0	0		0	5268.233186	1.756077729
24	0	0		18	5250.233186	1.750077729
25	0	0		18	5232.233186	1.744077729
26	0	0		18	5214.233186	1.738077729
27	0	0		18	5196.233186	1.732077729
28	0	0		18	5178.233186	1.726077729
29	0	0		18	5160.233186	1.720077729
30	0	0		18	5142.233186	1.714077729
31	0	0		18	5124.233186	1.708077729
Agustus						
1	0	0		18	5106.233186	1.702077729
2	0	0		18	5088.233186	1.696077729
3	0	0		18	5070.233186	1.690077729
4	0	0		18	5052.233186	1.684077729
5	0	0		18	5034.233186	1.678077729
6	0	0		18	5016.233186	1.672077729
7	0	0		18	4998.233186	1.666077729
8	0	0		18	4980.233186	1.660077729
9	0	0		18	4962.233186	1.654077729
10	0	0		18	4944.233186	1.648077729
11	0	0		18	4926.233186	1.642077729
12	0	0		18	4908.233186	1.636077729
13	0	0		18	4890.233186	1.630077729
14	0	0		18	4872.233186	1.624077729
15	0	0		18	4854.233186	1.618077729
16	0	0		18	4836.233186	1.612077729
17	0	0		18	4818.233186	1.606077729
18	0	0		18	4800.233186	1.600077729
19	0	0		18	4782.233186	1.594077729
20	0	0		18	4764.233186	1.588077729
21	0	0		18	4746.233186	1.582077729
22	0	0		18	4728.233186	1.576077729
23	0	0		18	4710.233186	1.570077729
24	0	0		18	4692.233186	1.564077729
25	0	0		18	4674.233186	1.558077729
26	0	0		18	4656.233186	1.552077729
27	0	0		18	4638.233186	1.546077729
28	0	0		18	4620.233186	1.540077729
29	0	0		18	4602.233186	1.534077729
30	0	0		18	4584.233186	1.528077729
31	0	0		18	4566.233186	1.522077729

September						
1	0	0		18	4548.233186	1.516077729
2	0	0		18	4530.233186	1.510077729
3	0	0		18	4512.233186	1.504077729
4	0	0		18	4494.233186	1.498077729
5	0	0		18	4476.233186	1.492077729
6	0	0		18	4458.233186	1.486077729
7	0	0		18	4440.233186	1.480077729
8	0	0		18	4422.233186	1.474077729
9	0	0		18	4404.233186	1.468077729
10	0	0		18	4386.233186	1.462077729
11	0	0		18	4368.233186	1.456077729
12	0	0		18	4350.233186	1.450077729
13	0	0		18	4332.233186	1.444077729
14	0	0		18	4314.233186	1.438077729
15	0	0		18	4296.233186	1.432077729
16	0	0		18	4278.233186	1.426077729
17	0	0		18	4260.233186	1.420077729
18	0	0		18	4242.233186	1.414077729
19	0	0		18	4224.233186	1.408077729
20	0	0		18	4206.233186	1.402077729
21	0	0		18	4188.233186	1.396077729
22	0	0		18	4170.233186	1.390077729
23	0	0		18	4152.233186	1.384077729
24	0	0		18	4134.233186	1.378077729
25	0	0		18	4116.233186	1.372077729
26	0	0		18	4098.233186	1.366077729
27	0	0		18	4080.233186	1.360077729
28	0	0		18	4062.233186	1.354077729
29	0	0		18	4044.233186	1.348077729
30	0	0		18	4026.233186	1.342077729
Oktober						
1	0	0		18	4008.233186	1.336077729
2	0	0		18	3990.233186	1.330077729
3	0	0		18	3972.233186	1.324077729
4	0	0		18	3954.233186	1.318077729
5	64	891.445344		0	4845.67853	1.615226177
6	10	139.288335		0	4984.966865	1.661655622
7	0	0		0	4984.966865	1.661655622
8	0	0		0	4984.966865	1.661655622
9	20	278.57667		0	5263.543535	1.754514512
10	2	27.857667		0	5291.401202	1.763800401
11	0	0		0	5291.401202	1.763800401
12	0	0		0	5291.401202	1.763800401
13	0	0		0	5291.401202	1.763800401
14	8	111.430668		0	5402.83187	1.800943957
15	0	0		0	5402.83187	1.800943957
16	0	0		0	5402.83187	1.800943957
17	0	0		0	5402.83187	1.800943957
18	0	0		18	5384.83187	1.794943957
19	0	0		18	5366.83187	1.788943957
20	0	0		18	5348.83187	1.782943957
21	2	27.857667		0	5376.689537	1.792229846
22	0	0		0	5376.689537	1.792229846
23	0	0		0	5376.689537	1.792229846
24	0	0		0	5376.689537	1.792229846
25	37	515.3668395		0	5892.056376	1.964018792
26	0	0		0	5892.056376	1.964018792
27	0	0		0	5892.056376	1.964018792
28	0	0		0	5892.056376	1.964018792
29	0	0		18	5874.056376	1.958018792
30	0	0		18	5856.056376	1.952018792
31	0	0		18	5838.056376	1.946018792
November						
1	0	0		18	5820.056376	1.940018792
2	0	0		18	5802.056376	1.934018792
3	0	0		18	5784.056376	1.928018792
4	0	0		18	5766.056376	1.922018792
5	27	376.0785045	1500	0	4642.134881	1.547378294
6	0	0		0	4642.134881	1.547378294
7	17	236.7901695		0	4878.92505	1.62630835
8	0	0		0	4878.92505	1.62630835
9	0	0		0	4878.92505	1.62630835
10	42	585.011007		0	5463.936057	1.821312019

11	0	0		0	5463.936057	1.821312019
12	0	0		0	5463.936057	1.821312019
13	0	0		0	5463.936057	1.821312019
14	0	0		18	5445.936057	1.815312019
15	13	181.0748355		0	5627.010893	1.875670298
16	8	111.430668		0	5738.441561	1.912813854
17	0	0		0	5738.441561	1.912813854
18	38	529.295673	1500	0	4767.737234	1.589245745
19	0	0		0	4767.737234	1.589245745
20	3	41.7865005		0	4809.523734	1.603174578
21	0	0		0	4809.523734	1.603174578
22	0	0		0	4809.523734	1.603174578
23	0	0		0	4809.523734	1.603174578
24	8	111.430668		0	4920.954402	1.640318134
25	40	557.15334		0	5478.107742	1.826035914
26	0	0		0	5478.107742	1.826035914
27	29	403.9361715		0	5882.043914	1.960681305
28	5	69.6441675		0	5951.688081	1.983896027
29	0	0		0	5951.688081	1.983896027
30	3	41.7865005		0	5993.474582	1.997824861
Desember						
1	0	0		0	5993.474582	1.997824861
2	0	0		0	5993.474582	1.997824861
3	0	0		0	5993.474582	1.997824861
4	0	0		18	5975.474582	1.991824861
5	27	376.0785045	1500	0	4851.553086	1.617184362
6	0	0		0	4851.553086	1.617184362
7	17	236.7901695	1500	0	3588.343256	1.196114419
8	0	0		0	3588.343256	1.196114419
9	0	0		0	3588.343256	1.196114419
10	42	585.011007		0	4173.354263	1.391118088
11	0	0		0	4173.354263	1.391118088
12	0	0		0	4173.354263	1.391118088
13	0	0		0	4173.354263	1.391118088
14	0	0		18	4155.354263	1.385118088
15	13	181.0748355		0	4336.429098	1.445476366
16	8	111.430668		0	4447.859766	1.482619922
17	0	0		0	4447.859766	1.482619922
18	38	529.295673		0	4977.155439	1.659051813
19	0	0		0	4977.155439	1.659051813
20	3	41.7865005		0	5018.94194	1.672980647
21	0	0		0	5018.94194	1.672980647
22	0	0		0	5018.94194	1.672980647
23	0	0		0	5018.94194	1.672980647
24	8	111.430668		0	5130.372608	1.710124203
25	40	557.15334	1500	0	4187.525948	1.395841983
26	0	0		0	4187.525948	1.395841983
27	29	403.9361715		0	4591.462119	1.530487373
28	5	69.6441675		0	4661.106287	1.553702096
29	0	0		0	4661.106287	1.553702096
30	3	41.7865005		0	4702.892787	1.567630929
31	31	431.7938385		0	5134.686626	1.711562209

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	15	175.979948		0	4931.265707	1.972506283
2	20	234.63993	1200	0	3965.905637	1.586362255
3	10	117.319965		0	4083.225602	1.633290241
4	140	1642.47951	1200	0	4525.705112	1.810282045
5	13	152.515955		0	4678.221067	1.871288427
6	25	293.299913	1200	0	3771.520979	1.508608392
7	0	0		0	3771.520979	1.508608392
8	0	0		0	3771.520979	1.508608392
9	0	0		0	3771.520979	1.508608392
10	10	117.319965		0	3888.840944	1.555536378
11	0	0		0	3888.840944	1.555536378
12	20	234.63993		0	4123.480874	1.64939235
13	0	0		0	4123.480874	1.64939235
14	80	938.55972		0	5062.040594	2.024816238
15	0	0		0	5062.040594	2.024816238
16	30	351.959895	1200	0	4214.000489	1.685600196
17	0	0		0	4214.000489	1.685600196
18	0	0		0	4214.000489	1.685600196
19	0	0		0	4214.000489	1.685600196
20	0	0		18	4196.000489	1.678400196
21	0	0		18	4178.000489	1.671200196
22	0	0		18	4160.000489	1.664000196
23	0	0		18	4142.000489	1.656800196
24	0	0		18	4124.000489	1.649600196
25	0	0		18	4106.000489	1.642400196
26	0	0		18	4088.000489	1.635200196
27	0	0		18	4070.000489	1.628000196
28	15	175.979948		0	4245.980437	1.698392175
29	0	0		0	4245.980437	1.698392175
30	0	0		0	4245.980437	1.698392175
31	0	0		0	4245.980437	1.698392175
Februari						
1	20	234.63993		0	4480.620367	1.792248147
2	0	0		0	4480.620367	1.792248147
3	0	0		0	4480.620367	1.792248147
4	0	0		0	4480.620367	1.792248147
5	0	0		18	4462.620367	1.785048147
6	27	316.763906		0	4779.384272	1.911753709
7	50	586.599825	1200	0	4165.984097	1.666393639
8	0	0		0	4165.984097	1.666393639
9	30	351.959895	1200	0	3317.943992	1.327177597
10	0	0		0	3317.943992	1.327177597
11	15	175.979948		0	3493.92394	1.397569576
12	6	70.391979		0	3564.315919	1.425726368
13	20	234.63993		0	3798.955849	1.51958234
14	0	0		0	3798.955849	1.51958234
15	0	0		0	3798.955849	1.51958234
16	0	0		0	3798.955849	1.51958234
17	15	175.979948		0	3974.935796	1.589974319
18	20	234.63993		0	4209.575726	1.683830291
19	0	0		0	4209.575726	1.683830291
20	40	469.27986		0	4678.855586	1.871542235
21	15	175.979948	1200	0	3654.835534	1.461934214
22	57	668.723801		0	4323.559334	1.729423734
23	0	0		0	4323.559334	1.729423734
24	0	0		0	4323.559334	1.729423734
25	30	351.959895		0	4675.519229	1.870207692
26	47	551.403836	1200	0	4026.923065	1.610769226
27	5	58.6599825		0	4085.583047	1.634233219
28	27	316.763906		0	4402.346953	1.760938781
Maret						
1	47	551.403836		0	4953.750788	1.981500315
2	0	0		0	4953.750788	1.981500315
3	38	445.815867	1200	0	4199.566655	1.679826662
4	0	0		0	4199.566655	1.679826662
5	0	0		0	4199.566655	1.679826662
6	0	0		0	4199.566655	1.679826662
7	40	469.27986	1200	0	3468.846515	1.387538606
8	0	0		0	3468.846515	1.387538606
9	0	0		0	3468.846515	1.387538606



10	0	0		0	3468.846515	1.387538606
11	27	316.763906		0	3785.610421	1.514244168
12	0	0		0	3785.610421	1.514244168
13	0	0		0	3785.610421	1.514244168
14	0	0		0	3785.610421	1.514244168
15	30	351.959895		0	4137.570316	1.655028126
16	0	0		0	4137.570316	1.655028126
17	0	0		0	4137.570316	1.655028126
18	20	234.63993		0	4372.210246	1.748884098
19	45	527.939843	1200	0	3700.150088	1.480060035
20	50	586.599825		0	4286.749913	1.714699965
21	0	0		0	4286.749913	1.714699965
22	0	0		0	4286.749913	1.714699965
23	0	0		0	4286.749913	1.714699965
24	12	140.783958		0	4427.533871	1.771013549
25	0	0		0	4427.533871	1.771013549
26	0	0		0	4427.533871	1.771013549
27	0	0		0	4427.533871	1.771013549
28	45	527.939843		0	4955.473714	1.982189486
29	60	703.91979	1200	0	4459.393504	1.783757402
30	0	0		0	4459.393504	1.783757402
31	0	0		0	4459.393504	1.783757402
April						
1	0	0		0	4459.393504	1.783757402
2	0	0		18	4441.393504	1.776557402
3	0	0		18	4423.393504	1.769357402
4	0	0		18	4405.393504	1.762157402
5	0	0		18	4387.393504	1.754957402
6	0	0		18	4369.393504	1.747757402
7	0	0		18	4351.393504	1.740557402
8	0	0		18	4333.393504	1.733357402
9	40	469.27986		0	4802.673364	1.921069346
10	15	175.979948		0	4978.653311	1.991461325
11	0	0		0	4978.653311	1.991461325
12	25	293.299913	1200	0	4071.953224	1.62878129
13	0	0		0	4071.953224	1.62878129
14	0	0		0	4071.953224	1.62878129
15	0	0		0	4071.953224	1.62878129
16	0	0		18	4053.953224	1.62158129
17	12	140.783958		0	4194.737182	1.677894873
18	0	0		0	4194.737182	1.677894873
19	0	0		0	4194.737182	1.677894873
20	0	0		0	4194.737182	1.677894873
21	8	93.855972	1200	0	3088.593154	1.235437262
22	0	0		0	3088.593154	1.235437262
23	0	0		0	3088.593154	1.235437262
24	0	0		0	3088.593154	1.235437262
25	0	0		18	3070.593154	1.228237262
26	0	0		18	3052.593154	1.221037262
27	0	0		18	3034.593154	1.213837262
28	0	0		18	3016.593154	1.206637262
29	0	0		18	2998.593154	1.199437262
30	58	680.455797		0	3679.048951	1.47161958

Mei						
1	0	0		0	3679.048951	1.47161958
2	0	0		0	3679.048951	1.47161958
3	0	0		0	3679.048951	1.47161958
4	0	0		18	3661.048951	1.46441958
5	0	0		18	3643.048951	1.45721958
6	0	0		18	3625.048951	1.45001958
7	0	0		18	3607.048951	1.44281958
8	0	0		18	3589.048951	1.43561958
9	0	0		18	3571.048951	1.42841958
10	30	351.959895		0	3923.008846	1.569203538
11	0	0		0	3923.008846	1.569203538
12	0	0		0	3923.008846	1.569203538
13	0	0		0	3923.008846	1.569203538
14	0	0		18	3905.008846	1.562003538
15	0	0		18	3887.008846	1.554803538
16	0	0		18	3869.008846	1.547603538
17	0	0		18	3851.008846	1.540403538
18	0	0		18	3833.008846	1.533203538
19	0	0		18	3815.008846	1.526003538
20	0	0		18	3797.008846	1.518803538
21	0	0		18	3779.008846	1.511603538
22	0	0		18	3761.008846	1.504403538
23	0	0		18	3743.008846	1.497203538
24	0	0		18	3725.008846	1.490003538
25	0	0		18	3707.008846	1.482803538
26	0	0		18	3689.008846	1.475603538
27	0	0		18	3671.008846	1.468403538
28	0	0		18	3653.008846	1.461203538
29	20	234.63993		0	3887.648776	1.55505951
30	0	0		0	3887.648776	1.55505951
31	5	58.6599825		0	3946.308758	1.578523503
Juni						
1	5	58.6599825		0	4004.968741	1.601987496
2	0	0		0	4004.968741	1.601987496
3	0	0		0	4004.968741	1.601987496
4	0	0		0	4004.968741	1.601987496
5	0	0		18	3986.968741	1.594787496
6	0	0		18	3968.968741	1.587587496
7	0	0		18	3950.968741	1.580387496
8	0	0		18	3932.968741	1.573187496
9	0	0		18	3914.968741	1.565987496
10	0	0		18	3896.968741	1.558787496
11	0	0		18	3878.968741	1.551587496
12	0	0		18	3860.968741	1.544387496
13	0	0		18	3842.968741	1.537187496
14	0	0		18	3824.968741	1.529987496
15	0	0		18	3806.968741	1.522787496
16	0	0		18	3788.968741	1.515587496
17	0	0		18	3770.968741	1.508387496
18	0	0		18	3752.968741	1.501187496
19	0	0		18	3734.968741	1.493987496
20	0	0		18	3716.968741	1.486787496
21	0	0		18	3698.968741	1.479587496
22	0	0		18	3680.968741	1.472387496
23	0	0		18	3662.968741	1.465187496
24	0	0		18	3644.968741	1.457987496
25	0	0		18	3626.968741	1.450787496
26	0	0		18	3608.968741	1.443587496
27	0	0		18	3590.968741	1.436387496
28	0	0		18	3572.968741	1.429187496
29	0	0		18	3554.968741	1.421987496
30	0	0		18	3536.968741	1.414787496
Juli						
1	0	0		18	3518.968741	1.407587496
2	0	0		18	3500.968741	1.400387496
3	0	0		18	3482.968741	1.393187496
4	0	0		18	3464.968741	1.385987496
5	0	0		18	3446.968741	1.378787496
6	0	0		18	3428.968741	1.371587496
7	0	0		18	3410.968741	1.364387496
8	0	0		18	3392.968741	1.357187496
9	0	0		18	3374.968741	1.349987496
10	0	0		18	3356.968741	1.342787496

11	0	0		18	3338.968741	1.335587496
12	0	0		18	3320.968741	1.328387496
13	0	0		18	3302.968741	1.321187496
14	0	0		18	3284.968741	1.313987496
15	0	0		18	3266.968741	1.306787496
16	0	0		18	3248.968741	1.299587496
17	0	0		18	3230.968741	1.292387496
18	0	0		18	3212.968741	1.285187496
19	0	0		18	3194.968741	1.277987496
20	0	0		18	3176.968741	1.270787496
21	0	0		18	3158.968741	1.263587496
22	0	0		18	3140.968741	1.256387496
23	0	0		18	3122.968741	1.249187496
24	0	0		18	3104.968741	1.241987496
25	0	0		18	3086.968741	1.234787496
26	0	0		18	3068.968741	1.227587496
27	0	0		18	3050.968741	1.220387496
28	0	0		18	3032.968741	1.213187496
29	0	0		18	3014.968741	1.205987496
30	0	0		18	2996.968741	1.198787496
31	0	0		18	2978.968741	1.191587496
Agustus						
1	0	0		18	2960.968741	1.184387496
2	0	0		18	2942.968741	1.177187496
3	0	0		18	2924.968741	1.169987496
4	0	0		18	2906.968741	1.162787496
5	0	0		18	2888.968741	1.155587496
6	0	0		18	2870.968741	1.148387496
7	0	0		18	2852.968741	1.141187496
8	0	0		18	2834.968741	1.133987496
9	0	0		18	2816.968741	1.126787496
10	0	0		18	2798.968741	1.119587496
11	0	0		18	2780.968741	1.112387496
12	0	0		18	2762.968741	1.105187496
13	0	0		18	2744.968741	1.097987496
14	0	0		18	2726.968741	1.090787496
15	0	0		18	2708.968741	1.083587496
16	0	0		18	2690.968741	1.076387496
17	0	0		18	2672.968741	1.069187496
18	0	0		18	2654.968741	1.061987496
19	0	0		18	2636.968741	1.054787496
20	0	0		18	2618.968741	1.047587496
21	0	0		18	2600.968741	1.040387496
22	0	0		18	2582.968741	1.033187496
23	0	0		18	2564.968741	1.025987496
24	0	0		18	2546.968741	1.018787496
25	0	0		18	2528.968741	1.011587496
26	0	0		18	2510.968741	1.004387496
27	0	0		18	2492.968741	0.997187496
28	0	0		18	2474.968741	0.989987496
29	0	0		18	2456.968741	0.982787496
30	0	0		18	2438.968741	0.975587496
31	0	0		18	2420.968741	0.968387496

September						
1	0	0		18	2402.968741	0.961187496
2	0	0		18	2384.968741	0.953987496
3	0	0		18	2366.968741	0.946787496
4	0	0		18	2348.968741	0.939587496
5	0	0		18	2330.968741	0.932387496
6	0	0		18	2312.968741	0.925187496
7	0	0		18	2294.968741	0.917987496
8	0	0		18	2276.968741	0.910787496
9	0	0		18	2258.968741	0.903587496
10	0	0		18	2240.968741	0.896387496
11	0	0		18	2222.968741	0.889187496
12	0	0		18	2204.968741	0.881987496
13	0	0		18	2186.968741	0.874787496
14	0	0		18	2168.968741	0.867587496
15	0	0		18	2150.968741	0.860387496
16	0	0		18	2132.968741	0.853187496
17	0	0		18	2114.968741	0.845987496
18	0	0		18	2096.968741	0.838787496
19	0	0		18	2078.968741	0.831587496
20	0	0		18	2060.968741	0.824387496
21	0	0		18	2042.968741	0.817187496
22	0	0		18	2024.968741	0.809987496
23	0	0		18	2006.968741	0.802787496
24	0	0		18	1988.968741	0.795587496
25	0	0		18	1970.968741	0.788387496
26	0	0		18	1952.968741	0.781187496
27	0	0		18	1934.968741	0.773987496
28	0	0		18	1916.968741	0.766787496
29	0	0		18	1898.968741	0.759587496
30	0	0		18	1880.968741	0.752387496
Oktober						
1	0	0		18	1862.968741	0.745187496
2	0	0		18	1844.968741	0.737987496
3	0	0		18	1826.968741	0.730787496
4	0	0		18	1808.968741	0.723587496
5	0	0		18	1790.968741	0.716387496
6	0	0		18	1772.968741	0.709187496
7	0	0		18	1754.968741	0.701987496
8	0	0		18	1736.968741	0.694787496
9	0	0		18	1718.968741	0.687587496
10	0	0		18	1700.968741	0.680387496
11	0	0		18	1682.968741	0.673187496
12	0	0		18	1664.968741	0.665987496
13	0	0		18	1646.968741	0.658787496
14	0	0		18	1628.968741	0.651587496
15	0	0		18	1610.968741	0.644387496
16	0	0		18	1592.968741	0.637187496
17	0	0		18	1574.968741	0.629987496
18	0	0		18	1556.968741	0.622787496
19	0	0		18	1538.968741	0.615587496
20	0	0		18	1520.968741	0.608387496
21	0	0		18	1502.968741	0.601187496
22	0	0		18	1484.968741	0.593987496
23	0	0		18	1466.968741	0.586787496
24	0	0		18	1448.968741	0.579587496
25	0	0		18	1430.968741	0.572387496
26	0	0		18	1412.968741	0.565187496
27	0	0		18	1394.968741	0.557987496
28	0	0		18	1376.968741	0.550787496
29	0	0		18	1358.968741	0.543587496
30	0	0		18	1340.968741	0.536387496
31	0	0		18	1322.968741	0.529187496
November						
1	0	0		18	1304.968741	0.521987496
2	0	0		18	1286.968741	0.514787496
3	0	0		18	1268.968741	0.507587496
4	0	0		18	1250.968741	0.500387496
5	0	0		18	1232.968741	0.493187496
6	0	0		18	1214.968741	0.485987496
7	0	0		18	1196.968741	0.478787496
8	0	0		18	1178.968741	0.471587496
9	0	0		18	1160.968741	0.464387496
10	0	0		18	1142.968741	0.457187496

11	0	0		18	1124.968741	0.449987496
12	0	0		18	1106.968741	0.442787496
13	0	0		18	1088.968741	0.435587496
14	0	0		18	1070.968741	0.428387496
15	0	0		18	1052.968741	0.421187496
16	0	0		18	1034.968741	0.413987496
17	0	0		18	1016.968741	0.406787496
18	0	0		18	998.9687407	0.399587496
19	0	0		18	980.9687407	0.392387496
20	0	0		18	962.9687407	0.385187496
21	0	0		18	944.9687407	0.377987496
22	0	0		18	926.9687407	0.370787496
23	0	0		18	908.9687407	0.363587496
24	0	0		18	890.9687407	0.356387496
25	0	0		18	872.9687407	0.349187496
26	0	0		18	854.9687407	0.341987496
27	0	0		18	836.9687407	0.334787496
28	0	0		18	818.9687407	0.327587496
29	0	0		18	800.9687407	0.320387496
30	0	0		18	782.9687407	0.313187496
Desenber						
1	0	0		18	764.9687407	0.305987496
2	0	0		18	746.9687407	0.298787496
3	7	82.1239755		18	811.0927162	0.324437086
4	0	0		18	793.0927162	0.317237086
5	0	0		18	775.0927162	0.310037086
6	0	0		18	757.0927162	0.302837086
7	0	0		18	739.0927162	0.295637086
8	0	0		18	721.0927162	0.288437086
9	0	0		18	703.0927162	0.281237086
10	0	0		18	685.0927162	0.274037086
11	0	0		18	667.0927162	0.266837086
12	0	0		18	649.0927162	0.259637086
13	0	0		18	631.0927162	0.252437086
14	0	0		18	613.0927162	0.245237086
15	0	0		18	595.0927162	0.238037086
16	0	0		18	577.0927162	0.230837086
17	20	234.63993		18	793.7326462	0.317493058
18	0	0		18	775.7326462	0.310293058
19	0	0		18	757.7326462	0.303093058
20	0	0		18	739.7326462	0.295893058
21	0	0		18	721.7326462	0.288693058
22	0	0		18	703.7326462	0.281493058
23	0	0		18	685.7326462	0.274293058
24	0	0		18	667.7326462	0.267093058
25	0	0		18	649.7326462	0.259893058
26	0	0		18	631.7326462	0.252693058
27	0	0		18	613.7326462	0.245493058
28	0	0		18	595.7326462	0.238293058
29	50	586.599825		0	1182.332471	0.472932988
30	80	938.55972		0	2120.892191	0.848356876
31	0	0		0	2120.892191	0.848356876

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	15	208.9325025		0	5343.619128	1.781206376
2	29	403.9361715		0	5747.5553	1.915851767
3	0	0		0	5747.5553	1.915851767
4	36	501.438006	1500	0	4748.993306	1.582997769
5	5	69.6441675		0	4818.637473	1.606212491
6	0	0		0	4818.637473	1.606212491
7	23	320.3631705		0	5139.000644	1.713000215
8	7	97.5018345		0	5236.502478	1.745500826
9	16	222.861336		0	5459.363814	1.819787938
10	0	0		0	5459.363814	1.819787938
11	13	181.0748355		0	5640.43865	1.880146217
12	0	0		0	5640.43865	1.880146217
13	7	97.5018345		0	5737.940484	1.912646828
14	0	0		0	5737.940484	1.912646828
15	44	612.868674	1500	0	4850.809158	1.616936386
16	0	0		0	4850.809158	1.616936386
17	23	320.3631705		0	5171.172329	1.72372411
18	13	181.0748355		0	5352.247164	1.784082388
19	0	0		0	5352.247164	1.784082388
20	0	0		0	5352.247164	1.784082388
21	6	83.573001		0	5435.820165	1.811940055
22	0	0		0	5435.820165	1.811940055
23	41	571.0821735	1500	0	4506.902339	1.50230078
24	0	0		0	4506.902339	1.50230078
25	2	27.857667		0	4534.760006	1.511586669
26	0	0		0	4534.760006	1.511586669
27	8	111.430668		0	4646.190674	1.548730225
28	11	153.2171685		0	4799.407842	1.599802614
29	36	501.438006	1500	0	3800.845848	1.266948616
30	123	1713.246521		0	5514.092369	1.83803079
31	0	0		0	5514.092369	1.83803079
Februari						
1	0	0		0	5514.092369	1.83803079
2	0	0		0	5514.092369	1.83803079
3	15	208.9325025	1500	0	4223.024871	1.407674957
4	0	0		0	4223.024871	1.407674957
5	0	0		0	4223.024871	1.407674957
6	3	41.7865005		0	4264.811372	1.421603791
7	0	0		0	4264.811372	1.421603791
8	2	27.857667		0	4292.669039	1.43088968
9	0	0		0	4292.669039	1.43088968
10	12	167.146002		0	4459.815041	1.486605014
11	0	0		0	4459.815041	1.486605014
12	0	0		0	4459.815041	1.486605014
13	21	292.5055035		0	4752.320544	1.584106848
14	0	0		0	4752.320544	1.584106848
15	10	139.288335		0	4891.608879	1.630536293
16	8	111.430668		0	5003.039547	1.667679849
17	0	0		0	5003.039547	1.667679849
18	0	0		0	5003.039547	1.667679849
19	0	0		0	5003.039547	1.667679849
20	4	55.715334		0	5058.754881	1.686251627
21	0	0		0	5058.754881	1.686251627
22	9	125.3595015		0	5184.114383	1.728038128
23	17	236.7901695		0	5420.904552	1.806968184
24	0	0		0	5420.904552	1.806968184
25	3	41.7865005		0	5462.691053	1.820897018
26	6	83.573001		0	5546.264054	1.848754685
27	4	55.715334		0	5601.979388	1.867326463
28	1	13.9288335		0	5615.908221	1.871969407
Maret						
1	2	27.857667		0	5643.765888	1.881255296
2	0	0		0	5643.765888	1.881255296
3	0	0		0	5643.765888	1.881255296
4	0	0		0	5643.765888	1.881255296
5	0	0		18	5625.765888	1.875255296
6	19	264.6478365		0	5890.413725	1.963471242
7	0	0		0	5890.413725	1.963471242
8	30	417.865005	1500	0	4808.27873	1.602759577
9	0	0		0	4808.27873	1.602759577

10	42	585.011007		0	5393.289737	1.797763246
11	1	13.9288335		0	5407.21857	1.80240619
12	0	0		0	5407.21857	1.80240619
13	0	0		0	5407.21857	1.80240619
14	0	0		0	5407.21857	1.80240619
15	0	0		18	5389.21857	1.79640619
16	0	0		18	5371.21857	1.79040619
17	0	0		18	5353.21857	1.78440619
18	0	0		18	5335.21857	1.77840619
19	0	0		18	5317.21857	1.77240619
20	0	0		18	5299.21857	1.76640619
21	0	0		18	5281.21857	1.76040619
22	0	0		18	5263.21857	1.75440619
23	0	0		18	5245.21857	1.74840619
24	0	0		18	5227.21857	1.74240619
25	2	27.857667		0	5255.076237	1.751692079
26	9	125.3595015		0	5380.435739	1.79347858
27	5	69.6441675		0	5450.079906	1.816693302
28	2	27.857667		0	5477.937573	1.825979191
29	7	97.5018345		0	5575.439408	1.858479803
30	10	139.288335		0	5714.727743	1.904909248
31	2	27.857667		0	5742.58541	1.914195137
April						
1	6	83.573001		0	5826.158411	1.942052804
2	2	27.857667		0	5854.016078	1.951338693
3	3	41.7865005		0	5895.802578	1.965267526
4	0	0		0	5895.802578	1.965267526
5	0	0		0	5895.802578	1.965267526
6	0	0		0	5895.802578	1.965267526
7	0	0		18	5877.802578	1.959267526
8	0	0		18	5859.802578	1.953267526
9	0	0		18	5841.802578	1.947267526
10	0	0		18	5823.802578	1.941267526
11	0	0		18	5805.802578	1.935267526
12	0	0		18	5787.802578	1.929267526
13	0	0		18	5769.802578	1.923267526
14	0	0		18	5751.802578	1.917267526
15	65	905.3741775	1500	0	5157.176756	1.719058919
16	10	139.288335		0	5296.465091	1.765488364
17	10	139.288335		0	5435.753426	1.811917809
18	1	13.9288335		0	5449.682259	1.816560753
19	7	97.5018345		0	5547.184094	1.849061365
20	4	55.715334		0	5602.899428	1.867633143
21	0	0		0	5602.899428	1.867633143
22	0	0		0	5602.899428	1.867633143
23	0	0		0	5602.899428	1.867633143
24	0	0		18	5584.899428	1.861633143
25	27	376.0785045		0	5960.977932	1.986992644
26	0	0		0	5960.977932	1.986992644
27	0	0		0	5960.977932	1.986992644
28	0	0		0	5960.977932	1.986992644
29	0	0		18	5942.977932	1.980992644
30	0	0		18	5924.977932	1.974992644

Mei						
1	0	0		18	5906.977932	1.968992644
2	1	13.9288335		0	5920.906766	1.973635589
3	0	0		0	5920.906766	1.973635589
4	0	0		0	5920.906766	1.973635589
5	0	0		0	5920.906766	1.973635589
6	0	0		18	5902.906766	1.967635589
7	0	0		18	5884.906766	1.961635589
8	0	0		18	5866.906766	1.955635589
9	5	69.6441675		0	5936.550933	1.978850311
10	5	69.6441675	1500	0	4506.195101	1.502065034
11	32	445.722672		0	4951.917773	1.650639258
12	0	0		0	4951.917773	1.650639258
13	1	13.9288335		0	4965.846606	1.655282202
14	0	0		0	4965.846606	1.655282202
15	0	0		0	4965.846606	1.655282202
16	0	0		0	4965.846606	1.655282202
17	0	0		18	4947.846606	1.649282202
18	0	0		18	4929.846606	1.643282202
19	0	0		18	4911.846606	1.637282202
20	0	0		18	4893.846606	1.631282202
21	0	0		18	4875.846606	1.625282202
22	0	0		18	4857.846606	1.619282202
23	9	125.3595015		0	4983.206108	1.661068703
24	0	0		0	4983.206108	1.661068703
25	0	0		0	4983.206108	1.661068703
26	0	0		0	4983.206108	1.661068703
27	0	0		18	4965.206108	1.655068703
28	0	0		18	4947.206108	1.649068703
29	32	445.722672		0	5392.92878	1.797642927
30	0	0		0	5392.92878	1.797642927
31	0	0		0	5392.92878	1.797642927
Juni						
1	0	0		0	5392.92878	1.797642927
2	0	0		18	5374.92878	1.791642927
3	0	0		18	5356.92878	1.785642927
4	0	0		18	5338.92878	1.779642927
5	0	0		18	5320.92878	1.773642927
6	0	0		18	5302.92878	1.767642927
7	0	0		18	5284.92878	1.761642927
8	0	0		18	5266.92878	1.755642927
9	0	0		18	5248.92878	1.749642927
10	0	0		18	5230.92878	1.743642927
11	0	0		18	5212.92878	1.737642927
12	0	0		18	5194.92878	1.731642927
13	0	0		18	5176.92878	1.725642927
14	0	0		18	5158.92878	1.719642927
15	0	0		18	5140.92878	1.713642927
16	0	0		18	5122.92878	1.707642927
17	0	0		18	5104.92878	1.701642927
18	0	0		18	5086.92878	1.695642927
19	0	0		18	5068.92878	1.689642927
20	0	0		18	5050.92878	1.683642927
21	0	0		18	5032.92878	1.677642927
22	0	0		18	5014.92878	1.671642927
23	0	0		18	4996.92878	1.665642927
24	0	0		18	4978.92878	1.659642927
25	0	0		18	4960.92878	1.653642927
26	0	0		18	4942.92878	1.647642927
27	0	0		18	4924.92878	1.641642927
28	0	0		18	4906.92878	1.635642927
29	0	0		18	4888.92878	1.629642927
30	0	0		18	4870.92878	1.623642927
Juli						
1	0	0		18	4852.92878	1.617642927
2	0	0		18	4834.92878	1.611642927
3	0	0		18	4816.92878	1.605642927
4	0	0		18	4798.92878	1.599642927
5	0	0		18	4780.92878	1.593642927
6	0	0		18	4762.92878	1.587642927
7	0	0		18	4744.92878	1.581642927
8	0	0		18	4726.92878	1.575642927
9	0	0		18	4708.92878	1.569642927
10	0	0		18	4690.92878	1.563642927



11	0	0		18	4672.92878	1.557642927
12	0	0		18	4654.92878	1.551642927
13	0	0		18	4636.92878	1.545642927
14	0	0		18	4618.92878	1.539642927
15	0	0		18	4600.92878	1.533642927
16	0	0		18	4582.92878	1.527642927
17	0	0		18	4564.92878	1.521642927
18	2	27.857667		18	4574.786447	1.524928816
19	0	0		18	4556.786447	1.518928816
20	0	0		18	4538.786447	1.512928816
21	0	0		18	4520.786447	1.506928816
22	0	0		18	4502.786447	1.500928816
23	0	0		18	4484.786447	1.494928816
24	0	0		18	4466.786447	1.488928816
25	0	0		18	4448.786447	1.482928816
26	0	0		18	4430.786447	1.476928816
27	0	0		18	4412.786447	1.470928816
28	0	0		18	4394.786447	1.464928816
29	0	0		18	4376.786447	1.458928816
30	0	0		18	4358.786447	1.452928816
31	0	0		18	4340.786447	1.446928816
Agustus						
1	0	0		18	4322.786447	1.440928816
2	0	0		18	4304.786447	1.434928816
3	0	0		18	4286.786447	1.428928816
4	0	0		18	4268.786447	1.422928816
5	0	0		18	4250.786447	1.416928816
6	0	0		18	4232.786447	1.410928816
7	0	0		18	4214.786447	1.404928816
8	0	0		18	4196.786447	1.398928816
9	0	0		18	4178.786447	1.392928816
10	0	0		18	4160.786447	1.386928816
11	0	0		18	4142.786447	1.380928816
12	0	0		18	4124.786447	1.374928816
13	0	0		18	4106.786447	1.368928816
14	0	0		18	4088.786447	1.362928816
15	0	0		18	4070.786447	1.356928816
16	0	0		18	4052.786447	1.350928816
17	0	0		18	4034.786447	1.344928816
18	0	0		18	4016.786447	1.338928816
19	0	0		18	3998.786447	1.332928816
20	0	0		18	3980.786447	1.326928816
21	0	0		18	3962.786447	1.320928816
22	0	0		18	3944.786447	1.314928816
23	0	0		18	3926.786447	1.308928816
24	0	0		18	3908.786447	1.302928816
25	0	0		18	3890.786447	1.296928816
26	0	0		18	3872.786447	1.290928816
27	0	0		18	3854.786447	1.284928816
28	0	0		18	3836.786447	1.278928816
29	0	0		18	3818.786447	1.272928816
30	0	0		18	3800.786447	1.266928816
31	0	0		18	3782.786447	1.260928816

September						
1	0	0		18	3764.786447	1.254928816
2	0	0		18	3746.786447	1.248928816
3	0	0		18	3728.786447	1.242928816
4	0	0		18	3710.786447	1.236928816
5	0	0		18	3692.786447	1.230928816
6	0	0		18	3674.786447	1.224928816
7	0	0		18	3656.786447	1.218928816
8	0	0		18	3638.786447	1.212928816
9	0	0		18	3620.786447	1.206928816
10	0	0		18	3602.786447	1.200928816
11	0	0		18	3584.786447	1.194928816
12	0	0		18	3566.786447	1.188928816
13	0	0		18	3548.786447	1.182928816
14	0	0		18	3530.786447	1.176928816
15	0	0		18	3512.786447	1.170928816
16	0	0		18	3494.786447	1.164928816
17	0	0		18	3476.786447	1.158928816
18	0	0		18	3458.786447	1.152928816
19	0	0		18	3440.786447	1.146928816
20	0	0		18	3422.786447	1.140928816
21	0	0		18	3404.786447	1.134928816
22	0	0		18	3386.786447	1.128928816
23	0	0		18	3368.786447	1.122928816
24	0	0		18	3350.786447	1.116928816
25	0	0		18	3332.786447	1.110928816
26	0	0		18	3314.786447	1.104928816
27	0	0		18	3296.786447	1.098928816
28	0	0		18	3278.786447	1.092928816
29	0	0		18	3260.786447	1.086928816
30	0	0		18	3242.786447	1.080928816
Oktober						
1	0	0		18	3224.786447	1.074928816
2	0	0		18	3206.786447	1.068928816
3	0	0		18	3188.786447	1.062928816
4	0	0		18	3170.786447	1.056928816
5	0	0		18	3152.786447	1.050928816
6	0	0		18	3134.786447	1.044928816
7	0	0		18	3116.786447	1.038928816
8	0	0		18	3098.786447	1.032928816
9	0	0		18	3080.786447	1.026928816
10	0	0		18	3062.786447	1.020928816
11	0	0		18	3044.786447	1.014928816
12	0	0		18	3026.786447	1.008928816
13	0	0		18	3008.786447	1.002928816
14	0	0		18	2990.786447	0.996928816
15	0	0		18	2972.786447	0.990928816
16	0	0		18	2954.786447	0.984928816
17	0	0		18	2936.786447	0.978928816
18	0	0		18	2918.786447	0.972928816
19	0	0		18	2900.786447	0.966928816
20	0	0		18	2882.786447	0.960928816
21	0	0		18	2864.786447	0.954928816
22	0	0		18	2846.786447	0.948928816
23	0	0		18	2828.786447	0.942928816
24	0	0		18	2810.786447	0.936928816
25	0	0		18	2792.786447	0.930928816
26	0	0		18	2774.786447	0.924928816
27	0	0		18	2756.786447	0.918928816
28	0	0		18	2738.786447	0.912928816
29	0	0		18	2720.786447	0.906928816
30	0	0		18	2702.786447	0.900928816
31	0	0		18	2684.786447	0.894928816
November						
1	0	0		18	2666.786447	0.888928816
2	0	0		18	2648.786447	0.882928816
3	0	0		18	2630.786447	0.876928816
4	0	0		18	2612.786447	0.870928816
5	0	0		18	2594.786447	0.864928816
6	0	0		18	2576.786447	0.858928816
7	0	0		18	2558.786447	0.852928816
8	0	0		18	2540.786447	0.846928816
9	0	0		18	2522.786447	0.840928816
10	0	0		18	2504.786447	0.834928816

11	0	0		18	2486.786447	0.828928816
12	0	0		18	2468.786447	0.822928816
13	0	0		18	2450.786447	0.816928816
14	6.3	87.75165105		0	2538.538098	0.846179366
15	0	0		0	2538.538098	0.846179366
16	0	0		0	2538.538098	0.846179366
17	0	0		0	2538.538098	0.846179366
18	0	0		18	2520.538098	0.840179366
19	0	0		18	2502.538098	0.834179366
20	0	0		18	2484.538098	0.828179366
21	0	0		18	2466.538098	0.822179366
22	0	0		18	2448.538098	0.816179366
23	0	0		18	2430.538098	0.810179366
24	4.5	62.67975075		0	2493.217848	0.831072616
25	0	0		0	2493.217848	0.831072616
26	0	0		0	2493.217848	0.831072616
27	5	69.6441675		0	2562.862016	0.854287339
28	0	0		0	2562.862016	0.854287339
29	3	41.7865005		0	2604.648516	0.868216172
30	0	0		0	2604.648516	0.868216172
Desember						
1	3	41.7865005		0	2646.435017	0.882145006
2	2.5	34.82208375		0	2681.257101	0.893752367
3	5	69.6441675		0	2750.901268	0.916967089
4	18	250.719003		0	3001.620271	1.00054009
5	47.5	661.6195913		0	3663.239862	1.221079954
6	0	0		0	3663.239862	1.221079954
7	0	0		0	3663.239862	1.221079954
8	0	0		0	3663.239862	1.221079954
9	0	0		18	3645.239862	1.215079954
10	2.5	34.82208375		0	3680.061946	1.226687315
11	0	0		0	3680.061946	1.226687315
12	0	0		0	3680.061946	1.226687315
13	83.2	1158.878947		0	4838.940893	1.612980298
14	0	0		0	4838.940893	1.612980298
15	0	0		0	4838.940893	1.612980298
16	0	0		0	4838.940893	1.612980298
17	0	0		18	4820.940893	1.606980298
18	0	0		18	4802.940893	1.600980298
19	0	0		18	4784.940893	1.594980298
20	0	0		18	4766.940893	1.588980298
21	0	0		18	4748.940893	1.582980298
22	0	0		18	4730.940893	1.576980298
23	0	0		18	4712.940893	1.570980298
24	1	13.9288335		0	4726.869727	1.575623242
25	0	0		0	4726.869727	1.575623242
26	22	306.434337		0	5033.304064	1.677768021
27	0	0		0	5033.304064	1.677768021
28	8	111.430668		0	5144.734732	1.714911577
29	0	0		0	5144.734732	1.714911577
30	0	0		0	5144.734732	1.714911577
31	2.4	33.4292004		0	5178.163932	1.726054644

## ROBOTIKA ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	0	0		18	2102.892191	0.841156876
2	0	0		18	2084.892191	0.833956876
3	0	0		18	2066.892191	0.826756876
4	0	0		18	2048.892191	0.819556876
5	0	0		18	2030.892191	0.812356876
6	0	0		18	2012.892191	0.805156876
7	0	0		18	1994.892191	0.797956876
8	0	0		18	1976.892191	0.790756876
9	0	0		18	1958.892191	0.783556876
10	0	0		18	1940.892191	0.776356876
11	0	0		18	1922.892191	0.769156876
12	0	0		18	1904.892191	0.761956876
13	0	0		18	1886.892191	0.754756876
14	0	0		18	1868.892191	0.747556876
15	30	351.959895		0	2220.852086	0.888340834
16	0	0		0	2220.852086	0.888340834
17	0	0		0	2220.852086	0.888340834
18	0	0		0	2220.852086	0.888340834
19	15	175.979948		0	2396.832034	0.958732813
20	0	0		0	2396.832034	0.958732813
21	0	0		0	2396.832034	0.958732813
22	0	0		0	2396.832034	0.958732813
23	55	645.259808		0	3042.091841	1.216836737
24	75	879.899738		0	3921.991579	1.568796632
25	0	0		0	3921.991579	1.568796632
26	0	0		0	3921.991579	1.568796632
27	0	0		0	3921.991579	1.568796632
28	0	0		18	3903.991579	1.561596632
29	0	0		18	3885.991579	1.554396632
30	0	0		18	3867.991579	1.547196632
31	67	786.043766		0	4654.035344	1.861614138
Februari						
1	0	0		0	4654.035344	1.861614138
2	0	0		0	4654.035344	1.861614138
3	38	445.815867		0	5099.851211	2.039940485
4	24	281.567916	1200	0	4181.419127	1.672567651
5	16	187.711944		0	4369.131071	1.747652429
6	31	363.691892		0	4732.822963	1.893129185
7	0	0		0	4732.822963	1.893129185
8	0	0		0	4732.822963	1.893129185
9	0	0		0	4732.822963	1.893129185
10	15	175.979948		0	4908.80291	1.963521164
11	0	0		0	4908.80291	1.963521164
12	50	586.599825	1200	0	4295.402735	1.718161094
13	0	0		0	4295.402735	1.718161094
14	0	0		0	4295.402735	1.718161094
15	0	0		0	4295.402735	1.718161094
16	0	0		18	4277.402735	1.710961094
17	0	0		18	4259.402735	1.703761094
18	0	0		18	4241.402735	1.696561094
19	0	0		18	4223.402735	1.689361094
20	0	0		18	4205.402735	1.682161094
21	25	293.299913		0	4498.702648	1.799481059
22	0	0		0	4498.702648	1.799481059
23	0	0		0	4498.702648	1.799481059
24	20	234.63993		0	4733.342578	1.893337031
25	0	0		0	4733.342578	1.893337031
26	23	269.83592	1200	0	3803.178497	1.521271399
27	30	351.959895		0	4155.138392	1.662055357
28	45	527.939843		0	4683.078235	1.873231294
Maret						
1	25	293.299913		0	4976.378147	1.990551259
2	10	117.319965		0	5093.698112	2.037479245
3	0	0		0	5093.698112	2.037479245
4	0	0		0	5093.698112	2.037479245
5	0	0		0	5093.698112	2.037479245
6	0	0		18	5075.698112	2.030279245
7	40	469.27986	1200	0	4344.977972	1.737991189
8	55	645.259808	1200	0	3790.23778	1.516095112
9	0	0		0	3790.23778	1.516095112

10	0	0		0	3790.23778	1.516095112
11	0	0		0	3790.23778	1.516095112
12	0	0		18	3772.23778	1.508895112
13	0	0		18	3754.23778	1.501695112
14	20	234.63993	1200	0	2788.87771	1.115551084
15	0	0		0	2788.87771	1.115551084
16	0	0		0	2788.87771	1.115551084
17	0	0		0	2788.87771	1.115551084
18	0	0		18	2770.87771	1.108351084
19	0	0		18	2752.87771	1.101151084
20	0	0		18	2734.87771	1.093951084
21	39	457.547864		0	3192.425573	1.276970229
22	0	0		0	3192.425573	1.276970229
23	0	0		0	3192.425573	1.276970229
24	0	0		0	3192.425573	1.276970229
25	0	0		18	3174.425573	1.269770229
26	0	0		18	3156.425573	1.262570229
27	0	0		18	3138.425573	1.255370229
28	0	0		18	3120.425573	1.248170229
29	0	0		18	3102.425573	1.240970229
30	20	234.63993		18	3319.065503	1.327626201
31	0	0		18	3301.065503	1.320426201
April						
1	0	0		18	3283.065503	1.313226201
2	0	0		18	3265.065503	1.306026201
3	0	0		18	3247.065503	1.298826201
4	0	0		18	3229.065503	1.291626201
5	0	0		18	3211.065503	1.284426201
6	0	0		18	3193.065503	1.277226201
7	0	0		18	3175.065503	1.270026201
8	0	0		18	3157.065503	1.262826201
9	7	82.1239755		0	3239.189479	1.295675792
10	0	0		0	3239.189479	1.295675792
11	0	0		0	3239.189479	1.295675792
12	0	0		0	3239.189479	1.295675792
13	0	0		18	3221.189479	1.288475792
14	0	0		18	3203.189479	1.281275792
15	0	0		18	3185.189479	1.274075792
16	0	0		18	3167.189479	1.266875792
17	0	0		18	3149.189479	1.259675792
18	0	0		18	3131.189479	1.252475792
19	0	0		18	3113.189479	1.245275792
20	0	0		18	3095.189479	1.238075792
21	0	0		18	3077.189479	1.230875792
22	0	0		18	3059.189479	1.223675792
23	20	234.63993		0	3293.829409	1.317531764
24	0	0		0	3293.829409	1.317531764
25	0	0		0	3293.829409	1.317531764
26	0	0		0	3293.829409	1.317531764
27	0	0		18	3275.829409	1.310331764
28	0	0		18	3257.829409	1.303131764
29	0	0		18	3239.829409	1.295931764
30	0	0		18	3221.829409	1.288731764

Mei						
1	0	0		18	3203.829409	1.281531764
2	0	0		18	3185.829409	1.274331764
3	0	0		18	3167.829409	1.267131764
4	0	0		18	3149.829409	1.259931764
5	0	0		18	3131.829409	1.252731764
6	0	0		18	3113.829409	1.245531764
7	0	0		18	3095.829409	1.238331764
8	0	0		18	3077.829409	1.231131764
9	0	0		18	3059.829409	1.223931764
10	0	0		18	3041.829409	1.216731764
11	0	0		18	3023.829409	1.209531764
12	0	0		18	3005.829409	1.202331764
13	0	0		18	2987.829409	1.195131764
14	0	0		18	2969.829409	1.187931764
15	0	0		18	2951.829409	1.180731764
16	0	0		18	2933.829409	1.173531764
17	0	0		18	2915.829409	1.166331764
18	0	0		18	2897.829409	1.159131764
19	0	0		18	2879.829409	1.151931764
20	0	0		18	2861.829409	1.144731764
21	0	0		18	2843.829409	1.137531764
22	17	199.443941		18	3025.273349	1.21010934
23	0	0		18	3007.273349	1.20290934
24	0	0		18	2989.273349	1.19570934
25	0	0		18	2971.273349	1.18850934
26	0	0		18	2953.273349	1.18130934
27	0	0		18	2935.273349	1.17410934
28	0	0		18	2917.273349	1.16690934
29	0	0		18	2899.273349	1.15970934
30	0	0		18	2881.273349	1.15250934
31	0	0		18	2863.273349	1.14530934
Juni						
1	0	0		18	2845.273349	1.13810934
2	0	0		18	2827.273349	1.13090934
3	0	0		18	2809.273349	1.12370934
4	0	0		18	2791.273349	1.11650934
5	0	0		18	2773.273349	1.10930934
6	0	0		18	2755.273349	1.10210934
7	0	0		18	2737.273349	1.09490934
8	0	0		18	2719.273349	1.08770934
9	0	0		18	2701.273349	1.08050934
10	0	0		18	2683.273349	1.07330934
11	0	0		18	2665.273349	1.06610934
12	0	0		18	2647.273349	1.05890934
13	0	0		18	2629.273349	1.05170934
14	0	0		18	2611.273349	1.04450934
15	0	0		18	2593.273349	1.03730934
16	0	0		18	2575.273349	1.03010934
17	0	0		18	2557.273349	1.02290934
18	0	0		18	2539.273349	1.01570934
19	0	0		18	2521.273349	1.00850934
20	0	0		18	2503.273349	1.00130934
21	0	0		18	2485.273349	0.99410934
22	0	0		18	2467.273349	0.98690934
23	0	0		18	2449.273349	0.97970934
24	0	0		18	2431.273349	0.97250934
25	0	0		18	2413.273349	0.96530934
26	0	0		18	2395.273349	0.95810934
27	0	0		18	2377.273349	0.95090934
28	0	0		18	2359.273349	0.94370934
29	15	175.979948		0	2535.253297	1.014101319
30	0	0		0	2535.253297	1.014101319
Juli						
1	0	0		0	2535.253297	1.014101319
2	0	0		0	2535.253297	1.014101319
3	0	0		18	2517.253297	1.006901319
4	0	0		18	2499.253297	0.999701319
5	0	0		18	2481.253297	0.992501319
6	0	0		18	2463.253297	0.985301319
7	0	0		18	2445.253297	0.978101319
8	0	0		18	2427.253297	0.970901319
9	0	0		18	2409.253297	0.963701319
10	0	0		18	2391.253297	0.956501319

11	0	0		18	2373.253297	0.949301319
12	0	0		18	2355.253297	0.942101319
13	0	0		18	2337.253297	0.934901319
14	0	0		18	2319.253297	0.927701319
15	0	0		18	2301.253297	0.920501319
16	0	0		18	2283.253297	0.913301319
17	0	0		18	2265.253297	0.906101319
18	0	0		18	2247.253297	0.898901319
19	0	0		18	2229.253297	0.891701319
20	0	0		18	2211.253297	0.884501319
21	0	0		18	2193.253297	0.877301319
22	0	0		18	2175.253297	0.870101319
23	0	0		18	2157.253297	0.862901319
24	0	0		18	2139.253297	0.855701319
25	0	0		18	2121.253297	0.848501319
26	0	0		18	2103.253297	0.841301319
27	0	0		18	2085.253297	0.834101319
28	0	0		18	2067.253297	0.826901319
29	0	0		18	2049.253297	0.819701319
30	0	0		18	2031.253297	0.812501319
31	0	0		18	2013.253297	0.805301319
Agustus						
1	0	0		18	1995.253297	0.798101319
2	0	0		18	1977.253297	0.790901319
3	0	0		18	1959.253297	0.783701319
4	0	0		18	1941.253297	0.776501319
5	0	0		18	1923.253297	0.769301319
6	0	0		18	1905.253297	0.762101319
7	0	0		18	1887.253297	0.754901319
8	0	0		18	1869.253297	0.747701319
9	0	0		18	1851.253297	0.740501319
10	0	0		18	1833.253297	0.733301319
11	0	0		18	1815.253297	0.726101319
12	0	0		18	1797.253297	0.718901319
13	0	0		18	1779.253297	0.711701319
14	0	0		18	1761.253297	0.704501319
15	0	0		18	1743.253297	0.697301319
16	0	0		18	1725.253297	0.690101319
17	0	0		18	1707.253297	0.682901319
18	0	0		18	1689.253297	0.675701319
19	0	0		18	1671.253297	0.668501319
20	0	0		18	1653.253297	0.661301319
21	0	0		18	1635.253297	0.654101319
22	0	0		18	1617.253297	0.646901319
23	0	0		18	1599.253297	0.639701319
24	0	0		18	1581.253297	0.632501319
25	0	0		18	1563.253297	0.625301319
26	0	0		18	1545.253297	0.618101319
27	0	0		18	1527.253297	0.610901319
28	0	0		18	1509.253297	0.603701319
29	0	0		18	1491.253297	0.596501319
30	0	0		18	1473.253297	0.589301319
31	0	0		18	1455.253297	0.582101319

September						
1	0	0		18	1437.253297	0.574901319
2	0	0		18	1419.253297	0.567701319
3	0	0		18	1401.253297	0.560501319
4	0	0		18	1383.253297	0.553301319
5	0	0		18	1365.253297	0.546101319
6	0	0		18	1347.253297	0.538901319
7	0	0		18	1329.253297	0.531701319
8	0	0		18	1311.253297	0.524501319
9	0	0		18	1293.253297	0.517301319
10	0	0		18	1275.253297	0.510101319
11	0	0		18	1257.253297	0.502901319
12	0	0		18	1239.253297	0.495701319
13	0	0		18	1221.253297	0.488501319
14	0	0		18	1203.253297	0.481301319
15	0	0		18	1185.253297	0.474101319
16	0	0		18	1167.253297	0.466901319
17	0	0		18	1149.253297	0.459701319
18	0	0		18	1131.253297	0.452501319
19	0	0		18	1113.253297	0.445301319
20	0	0		18	1095.253297	0.438101319
21	0	0		18	1077.253297	0.430901319
22	0	0		18	1059.253297	0.423701319
23	0	0		18	1041.253297	0.416501319
24	0	0		18	1023.253297	0.409301319
25	0	0		18	1005.253297	0.402101319
26	0	0		18	987.2532967	0.394901319
27	0	0		18	969.2532967	0.387701319
28	0	0		18	951.2532967	0.380501319
29	0	0		18	933.2532967	0.373301319
30	0	0		18	915.2532967	0.366101319
Oktober						
1	0	0		18	897.2532967	0.358901319
2	0	0		18	879.2532967	0.351701319
3	0	0		18	861.2532967	0.344501319
4	0	0		18	843.2532967	0.337301319
5	0	0		18	825.2532967	0.330101319
6	0	0		18	807.2532967	0.322901319
7	0	0		18	789.2532967	0.315701319
8	0	0		18	771.2532967	0.308501319
9	0	0		18	753.2532967	0.301301319
10	0	0		18	735.2532967	0.294101319
11	0	0		18	717.2532967	0.286901319
12	0	0		18	699.2532967	0.279701319
13	0	0		18	681.2532967	0.272501319
14	0	0		18	663.2532967	0.265301319
15	0	0		18	645.2532967	0.258101319
16	0	0		18	627.2532967	0.250901319
17	0	0		18	609.2532967	0.243701319
18	0	0		18	591.2532967	0.236501319
19	0	0		18	573.2532967	0.229301319
20	0	0		18	555.2532967	0.222101319
21	0	0		18	537.2532967	0.214901319
22	0	0		18	519.2532967	0.207701319
23	0	0		18	501.2532967	0.200501319
24	0	0		18	483.2532967	0.193301319
25	0	0		18	465.2532967	0.186101319
26	0	0		18	447.2532967	0.178901319
27	0	0		18	429.2532967	0.171701319
28	0	0		18	411.2532967	0.164501319
29	0	0		18	393.2532967	0.157301319
30	0	0		18	375.2532967	0.150101319
31	0	0		18	357.2532967	0.142901319
November						
1	8	93.855972		0	451.1092687	0.180443707
2	5	58.6599825		0	509.7692512	0.2039077
3	11	129.051962		0	638.8212127	0.255528485
4	15	175.979948		0	814.8011602	0.325920464
5	0	0		0	814.8011602	0.325920464
6	3	35.1959895		0	849.9971497	0.33999886
7	2	23.463993		0	873.4611427	0.349384457
8	4	46.927986		0	920.3891287	0.368155651
9	0	0		0	920.3891287	0.368155651
10	0	0		0	920.3891287	0.368155651



11	0	0		0	920.3891287	0.368155651
12	0	0		18	902.3891287	0.360955651
13	0	0		18	884.3891287	0.353755651
14	0	0		18	866.3891287	0.346555651
15	0	0		18	848.3891287	0.339355651
16	0	0		18	830.3891287	0.332155651
17	0	0		18	812.3891287	0.324955651
18	0	0		18	794.3891287	0.317755651
19	0	0		18	776.3891287	0.310555651
20	0	0		18	758.3891287	0.303355651
21	0	0		18	740.3891287	0.296155651
22	0	0		18	722.3891287	0.288955651
23	1	11.7319965		18	716.1211252	0.28644845
24	0	0		18	698.1211252	0.27924845
25	0	0		18	680.1211252	0.27204845
26	0	0		18	662.1211252	0.26484845
27	0	0		18	644.1211252	0.25764845
28	0	0		18	626.1211252	0.25044845
29	84	985.487706		0	1611.608831	0.644643532
30	0	0		0	1611.608831	0.644643532
Desenber						
1	0	0		0	1611.608831	0.644643532
2	0	0		0	1611.608831	0.644643532
3	0	0		18	1593.608831	0.637443532
4	10	117.319965		0	1710.928796	0.684371518
5	0	0		0	1710.928796	0.684371518
6	0	0		0	1710.928796	0.684371518
7	0	0		0	1710.928796	0.684371518
8	0	0		18	1692.928796	0.677171518
9	0	0		18	1674.928796	0.669971518
10	0	0		18	1656.928796	0.662771518
11	0	0		18	1638.928796	0.655571518
12	0	0		18	1620.928796	0.648371518
13	0	0		18	1602.928796	0.641171518
14	0	0		18	1584.928796	0.633971518
15	0	0		18	1566.928796	0.626771518
16	0	0		18	1548.928796	0.619571518
17	127	1489.96356		0	3038.892352	1.215556941
18	50	586.599825		0	3625.492177	1.450196871
19	34	398.887881	1200	0	2824.380058	1.129752023
20	0	0		0	2824.380058	1.129752023
21	64	750.847776		0	3575.227834	1.430091134
22	5	58.6599825		0	3633.887816	1.453555127
23	0	0		0	3633.887816	1.453555127
24	10	117.319965		0	3751.207781	1.500483113
25	25	293.299913	1200	0	2844.507694	1.137803078
26	63	739.11578		0	3583.623473	1.433449389
27	0	0		0	3583.623473	1.433449389
28	0	0		0	3583.623473	1.433449389
29	0	0		0	3583.623473	1.433449389
30	0	0		18	3565.623473	1.426249389
31	0	0		18	3547.623473	1.419049389

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	15	208.9325025		0	5343.619128	1.781206376
2	29	403.9361715		0	5747.5553	1.915851767
3	0	0		0	5747.5553	1.915851767
4	36	501.438006	1500	0	4748.993306	1.582997769
5	5	69.6441675		0	4818.637473	1.606212491
6	0	0		0	4818.637473	1.606212491
7	23	320.3631705		0	5139.000644	1.713000215
8	7	97.5018345		0	5236.502478	1.745500826
9	16	222.861336		0	5459.363814	1.819787938
10	0	0		0	5459.363814	1.819787938
11	13	181.0748355		0	5640.43865	1.880146217
12	0	0		0	5640.43865	1.880146217
13	7	97.5018345		0	5737.940484	1.912646828
14	0	0		0	5737.940484	1.912646828
15	44	612.868674	1500	0	4850.809158	1.616936386
16	0	0		0	4850.809158	1.616936386
17	23	320.3631705		0	5171.172329	1.72372411
18	13	181.0748355		0	5352.247164	1.784082388
19	0	0		0	5352.247164	1.784082388
20	0	0		0	5352.247164	1.784082388
21	6	83.573001		0	5435.820165	1.811940055
22	0	0		0	5435.820165	1.811940055
23	41	571.0821735	1500	0	4506.902339	1.50230078
24	0	0		0	4506.902339	1.50230078
25	2	27.857667		0	4534.760006	1.511586669
26	0	0		0	4534.760006	1.511586669
27	8	111.430668		0	4646.190674	1.548730225
28	11	153.2171685		0	4799.407842	1.599802614
29	36	501.438006	1500	0	3800.845848	1.266948616
30	123	1713.246521		0	5514.092369	1.83803079
31	0	0		0	5514.092369	1.83803079
Februari						
1	0	0		0	5514.092369	1.83803079
2	0	0		0	5514.092369	1.83803079
3	15	208.9325025	1500	0	4223.024871	1.407674957
4	0	0		0	4223.024871	1.407674957
5	0	0		0	4223.024871	1.407674957
6	3	41.7865005		0	4264.811372	1.421603791
7	0	0		0	4264.811372	1.421603791
8	2	27.857667		0	4292.669039	1.43088968
9	0	0		0	4292.669039	1.43088968
10	12	167.146002		0	4459.815041	1.486605014
11	0	0		0	4459.815041	1.486605014
12	0	0		0	4459.815041	1.486605014
13	21	292.5055035		0	4752.320544	1.584106848
14	0	0		0	4752.320544	1.584106848
15	10	139.288335		0	4891.608879	1.630536293
16	8	111.430668		0	5003.039547	1.667679849
17	0	0		0	5003.039547	1.667679849
18	0	0		0	5003.039547	1.667679849
19	0	0		0	5003.039547	1.667679849
20	4	55.715334		0	5058.754881	1.686251627
21	0	0		0	5058.754881	1.686251627
22	9	125.3595015		0	5184.114383	1.728038128
23	17	236.7901695		0	5420.904552	1.806968184
24	0	0		0	5420.904552	1.806968184
25	3	41.7865005		0	5462.691053	1.820897018
26	6	83.573001		0	5546.264054	1.848754685
27	4	55.715334		0	5601.979388	1.867326463
28	1	13.9288335		0	5615.908221	1.871969407
Maret						
1	2	27.857667		0	5643.765888	1.881255296
2	0	0		0	5643.765888	1.881255296
3	0	0		0	5643.765888	1.881255296
4	0	0		0	5643.765888	1.881255296
5	0	0		18	5625.765888	1.875255296
6	19	264.6478365		0	5890.413725	1.963471242
7	0	0		0	5890.413725	1.963471242
8	30	417.865005	1500	0	4808.27873	1.602759577
9	0	0		0	4808.27873	1.602759577

10	42	585.011007		0	5393.289737	1.797763246
11	1	13.9288335		0	5407.21857	1.80240619
12	0	0		0	5407.21857	1.80240619
13	0	0		0	5407.21857	1.80240619
14	0	0		0	5407.21857	1.80240619
15	0	0		18	5389.21857	1.79640619
16	0	0		18	5371.21857	1.79040619
17	0	0		18	5353.21857	1.78440619
18	0	0		18	5335.21857	1.77840619
19	0	0		18	5317.21857	1.77240619
20	0	0		18	5299.21857	1.76640619
21	0	0		18	5281.21857	1.76040619
22	0	0		18	5263.21857	1.75440619
23	0	0		18	5245.21857	1.74840619
24	0	0		18	5227.21857	1.74240619
25	2	27.857667		0	5255.076237	1.751692079
26	9	125.3595015		0	5380.435739	1.79347858
27	5	69.6441675		0	5450.079906	1.816693302
28	2	27.857667		0	5477.937573	1.825979191
29	7	97.5018345		0	5575.439408	1.858479803
30	10	139.288335		0	5714.727743	1.904909248
31	2	27.857667		0	5742.58541	1.914195137
April						
1	6	83.573001		0	5826.158411	1.942052804
2	2	27.857667		0	5854.016078	1.951338693
3	3	41.7865005		0	5895.802578	1.965267526
4	0	0		0	5895.802578	1.965267526
5	0	0		0	5895.802578	1.965267526
6	0	0		0	5895.802578	1.965267526
7	0	0		18	5877.802578	1.959267526
8	0	0		18	5859.802578	1.953267526
9	0	0		18	5841.802578	1.947267526
10	0	0		18	5823.802578	1.941267526
11	0	0		18	5805.802578	1.935267526
12	0	0		18	5787.802578	1.929267526
13	0	0		18	5769.802578	1.923267526
14	0	0		18	5751.802578	1.917267526
15	65	905.3741775	1500	0	5157.176756	1.719058919
16	10	139.288335		0	5296.465091	1.765488364
17	10	139.288335		0	5435.753426	1.811917809
18	1	13.9288335		0	5449.682259	1.816560753
19	7	97.5018345		0	5547.184094	1.849061365
20	4	55.715334		0	5602.899428	1.867633143
21	0	0		0	5602.899428	1.867633143
22	0	0		0	5602.899428	1.867633143
23	0	0		0	5602.899428	1.867633143
24	0	0		18	5584.899428	1.861633143
25	27	376.0785045		0	5960.977932	1.986992644
26	0	0		0	5960.977932	1.986992644
27	0	0		0	5960.977932	1.986992644
28	0	0		0	5960.977932	1.986992644
29	0	0		18	5942.977932	1.980992644
30	0	0		18	5924.977932	1.974992644

Mei						
1	0	0		18	5906.977932	1.968992644
2	1	13.9288335		0	5920.906766	1.973635589
3	0	0		0	5920.906766	1.973635589
4	0	0		0	5920.906766	1.973635589
5	0	0		0	5920.906766	1.973635589
6	0	0		18	5902.906766	1.967635589
7	0	0		18	5884.906766	1.961635589
8	0	0		18	5866.906766	1.955635589
9	5	69.6441675		0	5936.550933	1.978850311
10	5	69.6441675	1500	0	4506.195101	1.502065034
11	32	445.722672		0	4951.917773	1.650639258
12	0	0		0	4951.917773	1.650639258
13	1	13.9288335		0	4965.846606	1.655282202
14	0	0		0	4965.846606	1.655282202
15	0	0		0	4965.846606	1.655282202
16	0	0		0	4965.846606	1.655282202
17	0	0		18	4947.846606	1.649282202
18	0	0		18	4929.846606	1.643282202
19	0	0		18	4911.846606	1.637282202
20	0	0		18	4893.846606	1.631282202
21	0	0		18	4875.846606	1.625282202
22	0	0		18	4857.846606	1.619282202
23	9	125.3595015		0	4983.206108	1.661068703
24	0	0		0	4983.206108	1.661068703
25	0	0		0	4983.206108	1.661068703
26	0	0		0	4983.206108	1.661068703
27	0	0		18	4965.206108	1.655068703
28	0	0		18	4947.206108	1.649068703
29	32	445.722672		0	5392.92878	1.797642927
30	0	0		0	5392.92878	1.797642927
31	0	0		0	5392.92878	1.797642927
Juni						
1	0	0		0	5392.92878	1.797642927
2	0	0		18	5374.92878	1.791642927
3	0	0		18	5356.92878	1.785642927
4	0	0		18	5338.92878	1.779642927
5	0	0		18	5320.92878	1.773642927
6	0	0		18	5302.92878	1.767642927
7	0	0		18	5284.92878	1.761642927
8	0	0		18	5266.92878	1.755642927
9	0	0		18	5248.92878	1.749642927
10	0	0		18	5230.92878	1.743642927
11	0	0		18	5212.92878	1.737642927
12	0	0		18	5194.92878	1.731642927
13	0	0		18	5176.92878	1.725642927
14	0	0		18	5158.92878	1.719642927
15	0	0		18	5140.92878	1.713642927
16	0	0		18	5122.92878	1.707642927
17	0	0		18	5104.92878	1.701642927
18	0	0		18	5086.92878	1.695642927
19	0	0		18	5068.92878	1.689642927
20	0	0		18	5050.92878	1.683642927
21	0	0		18	5032.92878	1.677642927
22	0	0		18	5014.92878	1.671642927
23	0	0		18	4996.92878	1.665642927
24	0	0		18	4978.92878	1.659642927
25	0	0		18	4960.92878	1.653642927
26	0	0		18	4942.92878	1.647642927
27	0	0		18	4924.92878	1.641642927
28	0	0		18	4906.92878	1.635642927
29	0	0		18	4888.92878	1.629642927
30	0	0		18	4870.92878	1.623642927
Juli						
1	0	0		18	4852.92878	1.617642927
2	0	0		18	4834.92878	1.611642927
3	0	0		18	4816.92878	1.605642927
4	0	0		18	4798.92878	1.599642927
5	0	0		18	4780.92878	1.593642927
6	0	0		18	4762.92878	1.587642927
7	0	0		18	4744.92878	1.581642927
8	0	0		18	4726.92878	1.575642927
9	0	0		18	4708.92878	1.569642927
10	0	0		18	4690.92878	1.563642927

11	0	0		18	4672.92878	1.557642927
12	0	0		18	4654.92878	1.551642927
13	0	0		18	4636.92878	1.545642927
14	0	0		18	4618.92878	1.539642927
15	0	0		18	4600.92878	1.533642927
16	0	0		18	4582.92878	1.527642927
17	0	0		18	4564.92878	1.521642927
18	2	27.857667		18	4574.786447	1.524928816
19	0	0		18	4556.786447	1.518928816
20	0	0		18	4538.786447	1.512928816
21	0	0		18	4520.786447	1.506928816
22	0	0		18	4502.786447	1.500928816
23	0	0		18	4484.786447	1.494928816
24	0	0		18	4466.786447	1.488928816
25	0	0		18	4448.786447	1.482928816
26	0	0		18	4430.786447	1.476928816
27	0	0		18	4412.786447	1.470928816
28	0	0		18	4394.786447	1.464928816
29	0	0		18	4376.786447	1.458928816
30	0	0		18	4358.786447	1.452928816
31	0	0		18	4340.786447	1.446928816
Agustus						
1	0	0		18	4322.786447	1.440928816
2	0	0		18	4304.786447	1.434928816
3	0	0		18	4286.786447	1.428928816
4	0	0		18	4268.786447	1.422928816
5	0	0		18	4250.786447	1.416928816
6	0	0		18	4232.786447	1.410928816
7	0	0		18	4214.786447	1.404928816
8	0	0		18	4196.786447	1.398928816
9	0	0		18	4178.786447	1.392928816
10	0	0		18	4160.786447	1.386928816
11	0	0		18	4142.786447	1.380928816
12	0	0		18	4124.786447	1.374928816
13	0	0		18	4106.786447	1.368928816
14	0	0		18	4088.786447	1.362928816
15	0	0		18	4070.786447	1.356928816
16	0	0		18	4052.786447	1.350928816
17	0	0		18	4034.786447	1.344928816
18	0	0		18	4016.786447	1.338928816
19	0	0		18	3998.786447	1.332928816
20	0	0		18	3980.786447	1.326928816
21	0	0		18	3962.786447	1.320928816
22	0	0		18	3944.786447	1.314928816
23	0	0		18	3926.786447	1.308928816
24	0	0		18	3908.786447	1.302928816
25	0	0		18	3890.786447	1.296928816
26	0	0		18	3872.786447	1.290928816
27	0	0		18	3854.786447	1.284928816
28	0	0		18	3836.786447	1.278928816
29	0	0		18	3818.786447	1.272928816
30	0	0		18	3800.786447	1.266928816
31	0	0		18	3782.786447	1.260928816

September						
1	0	0		18	3764.786447	1.254928816
2	0	0		18	3746.786447	1.248928816
3	0	0		18	3728.786447	1.242928816
4	0	0		18	3710.786447	1.236928816
5	0	0		18	3692.786447	1.230928816
6	0	0		18	3674.786447	1.224928816
7	0	0		18	3656.786447	1.218928816
8	0	0		18	3638.786447	1.212928816
9	0	0		18	3620.786447	1.206928816
10	0	0		18	3602.786447	1.200928816
11	0	0		18	3584.786447	1.194928816
12	0	0		18	3566.786447	1.188928816
13	0	0		18	3548.786447	1.182928816
14	0	0		18	3530.786447	1.176928816
15	0	0		18	3512.786447	1.170928816
16	0	0		18	3494.786447	1.164928816
17	0	0		18	3476.786447	1.158928816
18	0	0		18	3458.786447	1.152928816
19	0	0		18	3440.786447	1.146928816
20	0	0		18	3422.786447	1.140928816
21	0	0		18	3404.786447	1.134928816
22	0	0		18	3386.786447	1.128928816
23	0	0		18	3368.786447	1.122928816
24	0	0		18	3350.786447	1.116928816
25	0	0		18	3332.786447	1.110928816
26	0	0		18	3314.786447	1.104928816
27	0	0		18	3296.786447	1.098928816
28	0	0		18	3278.786447	1.092928816
29	0	0		18	3260.786447	1.086928816
30	0	0		18	3242.786447	1.080928816
Oktober						
1	0	0		18	3224.786447	1.074928816
2	0	0		18	3206.786447	1.068928816
3	0	0		18	3188.786447	1.062928816
4	0	0		18	3170.786447	1.056928816
5	0	0		18	3152.786447	1.050928816
6	0	0		18	3134.786447	1.044928816
7	0	0		18	3116.786447	1.038928816
8	0	0		18	3098.786447	1.032928816
9	0	0		18	3080.786447	1.026928816
10	0	0		18	3062.786447	1.020928816
11	0	0		18	3044.786447	1.014928816
12	0	0		18	3026.786447	1.008928816
13	0	0		18	3008.786447	1.002928816
14	0	0		18	2990.786447	0.996928816
15	0	0		18	2972.786447	0.990928816
16	0	0		18	2954.786447	0.984928816
17	0	0		18	2936.786447	0.978928816
18	0	0		18	2918.786447	0.972928816
19	0	0		18	2900.786447	0.966928816
20	0	0		18	2882.786447	0.960928816
21	0	0		18	2864.786447	0.954928816
22	0	0		18	2846.786447	0.948928816
23	0	0		18	2828.786447	0.942928816
24	0	0		18	2810.786447	0.936928816
25	0	0		18	2792.786447	0.930928816
26	0	0		18	2774.786447	0.924928816
27	0	0		18	2756.786447	0.918928816
28	0	0		18	2738.786447	0.912928816
29	0	0		18	2720.786447	0.906928816
30	0	0		18	2702.786447	0.900928816
31	0	0		18	2684.786447	0.894928816
November						
1	0	0		18	2666.786447	0.888928816
2	0	0		18	2648.786447	0.882928816
3	0	0		18	2630.786447	0.876928816
4	0	0		18	2612.786447	0.870928816
5	0	0		18	2594.786447	0.864928816
6	0	0		18	2576.786447	0.858928816
7	0	0		18	2558.786447	0.852928816
8	0	0		18	2540.786447	0.846928816
9	0	0		18	2522.786447	0.840928816
10	0	0		18	2504.786447	0.834928816

11	0	0		18	2486.786447	0.828928816
12	0	0		18	2468.786447	0.822928816
13	0	0		18	2450.786447	0.816928816
14	6.3	87.75165105		0	2538.538098	0.846179366
15	0	0		0	2538.538098	0.846179366
16	0	0		0	2538.538098	0.846179366
17	0	0		0	2538.538098	0.846179366
18	0	0		18	2520.538098	0.840179366
19	0	0		18	2502.538098	0.834179366
20	0	0		18	2484.538098	0.828179366
21	0	0		18	2466.538098	0.822179366
22	0	0		18	2448.538098	0.816179366
23	0	0		18	2430.538098	0.810179366
24	4.5	62.67975075		0	2493.217848	0.831072616
25	0	0		0	2493.217848	0.831072616
26	0	0		0	2493.217848	0.831072616
27	5	69.6441675		0	2562.862016	0.854287339
28	0	0		0	2562.862016	0.854287339
29	3	41.7865005		0	2604.648516	0.868216172
30	0	0		0	2604.648516	0.868216172
Desember						
1	3	41.7865005		0	2646.435017	0.882145006
2	2.5	34.82208375		0	2681.257101	0.893752367
3	5	69.6441675		0	2750.901268	0.916967089
4	18	250.719003		0	3001.620271	1.00054009
5	47.5	661.6195913		0	3663.239862	1.221079954
6	0	0		0	3663.239862	1.221079954
7	0	0		0	3663.239862	1.221079954
8	0	0		0	3663.239862	1.221079954
9	0	0		18	3645.239862	1.215079954
10	2.5	34.82208375		0	3680.061946	1.226687315
11	0	0		0	3680.061946	1.226687315
12	0	0		0	3680.061946	1.226687315
13	83.2	1158.878947		0	4838.940893	1.612980298
14	0	0		0	4838.940893	1.612980298
15	0	0		0	4838.940893	1.612980298
16	0	0		0	4838.940893	1.612980298
17	0	0		18	4820.940893	1.606980298
18	0	0		18	4802.940893	1.600980298
19	0	0		18	4784.940893	1.594980298
20	0	0		18	4766.940893	1.588980298
21	0	0		18	4748.940893	1.582980298
22	0	0		18	4730.940893	1.576980298
23	0	0		18	4712.940893	1.570980298
24	1	13.9288335		0	4726.869727	1.575623242
25	0	0		0	4726.869727	1.575623242
26	22	306.434337		0	5033.304064	1.677768021
27	0	0		0	5033.304064	1.677768021
28	8	111.430668		0	5144.734732	1.714911577
29	0	0		0	5144.734732	1.714911577
30	0	0		0	5144.734732	1.714911577
31	2.4	33.4292004		0	5178.163932	1.726054644

## ROBOTIKA ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	0	0		0	3547.623473	1.419049389
2	60	703.91979	1200	0	3051.543263	1.220617305
3	0	0		0	3051.543263	1.220617305
4	0	0		0	3051.543263	1.220617305
5	20	234.63993		0	3286.183193	1.314473277
6	10	117.319965		0	3403.503158	1.361401263
7	0	0		0	3403.503158	1.361401263
8	0	0		0	3403.503158	1.361401263
9	0	0		0	3403.503158	1.361401263
10	10	117.319965		0	3520.823123	1.408329249
11	0	0		0	3520.823123	1.408329249
12	0	0		0	3520.823123	1.408329249
13	0	0		0	3520.823123	1.408329249
14	0	0		18	3502.823123	1.401129249
15	0	0		18	3484.823123	1.393929249
16	86	1008.951699	1200	0	3293.774822	1.317509929
17	0	0		0	3293.774822	1.317509929
18	20	234.63993		0	3528.414752	1.411365901
19	0	0		0	3528.414752	1.411365901
20	0	0		0	3528.414752	1.411365901
21	0	0		0	3528.414752	1.411365901
22	40	469.27986	1200	0	2797.694612	1.119077845
23	43	504.4758495	1200	0	2102.170462	0.840868185
24	0	0		0	2102.170462	0.840868185
25	0	0		0	2102.170462	0.840868185
26	0	0		0	2102.170462	0.840868185
27	0	0		18	2084.170462	0.833668185
28	0	0		18	2066.170462	0.826468185
29	0	0		18	2048.170462	0.819268185
30	0	0		18	2030.170462	0.812068185
31	0	0		18	2012.170462	0.804868185
Februari						
1	0	0		18	1994.170462	0.797668185
2	0	0		18	1976.170462	0.790468185
3	28	328.495902		0	2304.666364	0.921866545
4	8	93.855972		0	2398.522336	0.959408934
5	6	70.391979		0	2468.914315	0.987565726
6	0	0		0	2468.914315	0.987565726
7	0	0		0	2468.914315	0.987565726
8	0	0		0	2468.914315	0.987565726
9	20	234.63993		0	2703.554245	1.081421698
10	0	0		0	2703.554245	1.081421698
11	0	0		0	2703.554245	1.081421698
12	0	0		0	2703.554245	1.081421698
13	0	0		18	2685.554245	1.074221698
14	0	0		18	2667.554245	1.067021698
15	0	0		18	2649.554245	1.059821698
16	0	0		18	2631.554245	1.052621698
17	0	0		18	2613.554245	1.045421698
18	0	0		18	2595.554245	1.038221698
19	0	0		18	2577.554245	1.031021698
20	0	0		18	2559.554245	1.023821698
21	0	0		18	2541.554245	1.016621698
22	0	0		18	2523.554245	1.009421698
23	0	0		18	2505.554245	1.002221698
24	0	0		18	2487.554245	0.995021698
25	90	1055.879685	1200	0	2343.43393	0.937373572
26	0	0		0	2343.43393	0.937373572
27	0	0		0	2343.43393	0.937373572
28	50	586.599825		0	2930.033755	1.172013502
Maret						
1	0	0		0	2930.033755	1.172013502
2	20	234.63993		0	3164.673685	1.265869474
3	50	586.599825		0	3751.27351	1.500509404
4	20	234.63993	1200	0	2785.91344	1.114365376
5	0	0		0	2785.91344	1.114365376
6	0	0		0	2785.91344	1.114365376
7	0	0		0	2785.91344	1.114365376
8	0	0		18	2767.91344	1.107165376
9	0	0		18	2749.91344	1.099965376



10	50	586.599825		0	3336.513265	1.334605306
11	0	0		0	3336.513265	1.334605306
12	15	175.9799475		0	3512.493212	1.404997285
13	0	0		0	3512.493212	1.404997285
14	0	0		0	3512.493212	1.404997285
15	0	0		0	3512.493212	1.404997285
16	0	0		18	3494.493212	1.397797285
17	0	0		18	3476.493212	1.390597285
18	0	0		18	3458.493212	1.383397285
19	0	0		18	3440.493212	1.376197285
20	50	586.599825		0	4027.093037	1.610837215
21	30	351.959895		0	4379.052932	1.751621173
22	0	0		0	4379.052932	1.751621173
23	0	0		0	4379.052932	1.751621173
24	0	0		0	4379.052932	1.751621173
25	0	0		18	4361.052932	1.744421173
26	0	0		18	4343.052932	1.737221173
27	0	0		18	4325.052932	1.730021173
28	0	0		18	4307.052932	1.722821173
29	0	0		18	4289.052932	1.715621173
30	0	0		18	4271.052932	1.708421173
31	0	0		18	4253.052932	1.701221173
April						
1	0	0		18	4235.052932	1.694021173
2	0	0		18	4217.052932	1.686821173
3	0	0		18	4199.052932	1.679621173
4	0	0		18	4181.052932	1.672421173
5	0	0		18	4163.052932	1.665221173
6	0	0		18	4145.052932	1.658021173
7	0	0		18	4127.052932	1.650821173
8	0	0		18	4109.052932	1.643621173
9	0	0		18	4091.052932	1.636421173
10	0	0		18	4073.052932	1.629221173
11	0	0		18	4055.052932	1.622021173
12	0	0		18	4037.052932	1.614821173
13	0	0		18	4019.052932	1.607621173
14	0	0		18	4001.052932	1.600421173
15	0	0		18	3983.052932	1.593221173
16	0	0		18	3965.052932	1.586021173
17	0	0		18	3947.052932	1.578821173
18	0	0		18	3929.052932	1.571621173
19	0	0		18	3911.052932	1.564421173
20	0	0		18	3893.052932	1.557221173
21	0	0		18	3875.052932	1.550021173
22	0	0		18	3857.052932	1.542821173
23	0	0		18	3839.052932	1.535621173
24	0	0		18	3821.052932	1.528421173
25	0	0		18	3803.052932	1.521221173
26	0	0		18	3785.052932	1.514021173
27	0	0		18	3767.052932	1.506821173
28	0	0		18	3749.052932	1.499621173
29	0	0		18	3731.052932	1.492421173
30	0	0		18	3713.052932	1.485221173

Mei						
1	0	0		18	3695.052932	1.478021173
2	15	175.9799475		0	3871.03288	1.548413152
3	0	0		0	3871.03288	1.548413152
4	0	0		0	3871.03288	1.548413152
5	0	0		0	3871.03288	1.548413152
6	0	0		18	3853.03288	1.541213152
7	0	0		18	3835.03288	1.534013152
8	0	0		18	3817.03288	1.526813152
9	0	0		18	3799.03288	1.519613152
10	0	0		18	3781.03288	1.512413152
11	0	0		18	3763.03288	1.505213152
12	0	0		18	3745.03288	1.498013152
13	0	0		18	3727.03288	1.490813152
14	0	0		18	3709.03288	1.483613152
15	0	0		18	3691.03288	1.476413152
16	0	0		18	3673.03288	1.469213152
17	0	0		18	3655.03288	1.462013152
18	0	0		18	3637.03288	1.454813152
19	0	0		18	3619.03288	1.447613152
20	0	0		18	3601.03288	1.440413152
21	0	0		18	3583.03288	1.433213152
22	0	0		18	3565.03288	1.426013152
23	0	0		18	3547.03288	1.418813152
24	0	0		18	3529.03288	1.411613152
25	0	0		18	3511.03288	1.404413152
26	0	0		18	3493.03288	1.397213152
27	0	0		18	3475.03288	1.390013152
28	0	0		18	3457.03288	1.382813152
29	0	0		18	3439.03288	1.375613152
30	0	0		18	3421.03288	1.368413152
31	0	0		18	3403.03288	1.361213152
Juni						
1	0	0		18	3385.03288	1.354013152
2	0	0		18	3367.03288	1.346813152
3	0	0		18	3349.03288	1.339613152
4	0	0		18	3331.03288	1.332413152
5	0	0		18	3313.03288	1.325213152
6	0	0		18	3295.03288	1.318013152
7	0	0		18	3277.03288	1.310813152
8	0	0		18	3259.03288	1.303613152
9	0	0		18	3241.03288	1.296413152
10	0	0		18	3223.03288	1.289213152
11	0	0		18	3205.03288	1.282013152
12	0	0		18	3187.03288	1.274813152
13	0	0		18	3169.03288	1.267613152
14	0	0		18	3151.03288	1.260413152
15	0	0		18	3133.03288	1.253213152
16	0	0		18	3115.03288	1.246013152
17	0	0		18	3097.03288	1.238813152
18	0	0		18	3079.03288	1.231613152
19	0	0		18	3061.03288	1.224413152
20	0	0		18	3043.03288	1.217213152
21	0	0		18	3025.03288	1.210013152
22	0	0		18	3007.03288	1.202813152
23	0	0		18	2989.03288	1.195613152
24	0	0		18	2971.03288	1.188413152
25	0	0		18	2953.03288	1.181213152
26	0	0		18	2935.03288	1.174013152
27	0	0		18	2917.03288	1.166813152
28	0	0		18	2899.03288	1.159613152
29	0	0		18	2881.03288	1.152413152
30	0	0		18	2863.03288	1.145213152
Juli						
1	0	0		18	2845.03288	1.138013152
2	0	0		18	2827.03288	1.130813152
3	0	0		18	2809.03288	1.123613152
4	0	0		18	2791.03288	1.116413152
5	0	0		18	2773.03288	1.109213152
6	0	0		18	2755.03288	1.102013152
7	0	0		18	2737.03288	1.094813152
8	0	0		18	2719.03288	1.087613152
9	0	0		18	2701.03288	1.080413152
10	0	0		18	2683.03288	1.073213152

11	0	0		18	2665.03288	1.066013152
12	0	0		18	2647.03288	1.058813152
13	0	0		18	2629.03288	1.051613152
14	0	0		18	2611.03288	1.044413152
15	0	0		18	2593.03288	1.037213152
16	0	0		18	2575.03288	1.030013152
17	0	0		18	2557.03288	1.022813152
18	0	0		18	2539.03288	1.015613152
19	0	0		18	2521.03288	1.008413152
20	0	0		18	2503.03288	1.001213152
21	0	0		18	2485.03288	0.994013152
22	0	0		18	2467.03288	0.986813152
23	0	0		18	2449.03288	0.979613152
24	0	0		18	2431.03288	0.972413152
25	0	0		18	2413.03288	0.965213152
26	0	0		18	2395.03288	0.958013152
27	0	0		18	2377.03288	0.950813152
28	0	0		18	2359.03288	0.943613152
29	0	0		18	2341.03288	0.936413152
30	0	0		18	2323.03288	0.929213152
31	0	0		18	2305.03288	0.922013152
Agustus						
1	0	0		18	2287.03288	0.914813152
2	0	0		18	2269.03288	0.907613152
3	0	0		18	2251.03288	0.900413152
4	0	0		18	2233.03288	0.893213152
5	0	0		18	2215.03288	0.886013152
6	0	0		18	2197.03288	0.878813152
7	0	0		18	2179.03288	0.871613152
8	0	0		18	2161.03288	0.864413152
9	0	0		18	2143.03288	0.857213152
10	0	0		18	2125.03288	0.850013152
11	0	0		18	2107.03288	0.842813152
12	0	0		18	2089.03288	0.835613152
13	0	0		18	2071.03288	0.828413152
14	0	0		18	2053.03288	0.821213152
15	0	0		18	2035.03288	0.814013152
16	0	0		18	2017.03288	0.806813152
17	0	0		18	1999.03288	0.799613152
18	0	0		18	1981.03288	0.792413152
19	0	0		18	1963.03288	0.785213152
20	0	0		18	1945.03288	0.778013152
21	0	0		18	1927.03288	0.770813152
22	0	0		18	1909.03288	0.763613152
23	0	0		18	1891.03288	0.756413152
24	0	0		18	1873.03288	0.749213152
25	0	0		18	1855.03288	0.742013152
26	0	0		18	1837.03288	0.734813152
27	0	0		18	1819.03288	0.727613152
28	0	0		18	1801.03288	0.720413152
29	0	0		18	1783.03288	0.713213152
30	0	0		18	1765.03288	0.706013152
31	0	0		18	1747.03288	0.698813152

September						
1	0	0		18	1729.03288	0.691613152
2	0	0		18	1711.03288	0.684413152
3	0	0		18	1693.03288	0.677213152
4	0	0		18	1675.03288	0.670013152
5	0	0		18	1657.03288	0.662813152
6	0	0		18	1639.03288	0.655613152
7	0	0		18	1621.03288	0.648413152
8	0	0		18	1603.03288	0.641213152
9	0	0		18	1585.03288	0.634013152
10	0	0		18	1567.03288	0.626813152
11	0	0		18	1549.03288	0.619613152
12	0	0		18	1531.03288	0.612413152
13	0	0		18	1513.03288	0.605213152
14	0	0		18	1495.03288	0.598013152
15	0	0		18	1477.03288	0.590813152
16	0	0		18	1459.03288	0.583613152
17	0	0		18	1441.03288	0.576413152
18	0	0		18	1423.03288	0.569213152
19	0	0		18	1405.03288	0.562013152
20	0	0		18	1387.03288	0.554813152
21	0	0		18	1369.03288	0.547613152
22	0	0		18	1351.03288	0.540413152
23	0	0		18	1333.03288	0.533213152
24	0	0		18	1315.03288	0.526013152
25	0	0		18	1297.03288	0.518813152
26	0	0		18	1279.03288	0.511613152
27	0	0		18	1261.03288	0.504413152
28	0	0		18	1243.03288	0.497213152
29	0	0		18	1225.03288	0.490013152
30	0	0		18	1207.03288	0.482813152
Oktober						
1	0	0		18	1189.03288	0.475613152
2	0	0		18	1171.03288	0.468413152
3	0	0		18	1153.03288	0.461213152
4	0	0		18	1135.03288	0.454013152
5	0	0		18	1117.03288	0.446813152
6	0	0		18	1099.03288	0.439613152
7	0	0		18	1081.03288	0.432413152
8	0	0		18	1063.03288	0.425213152
9	0	0		18	1045.03288	0.418013152
10	0	0		18	1027.03288	0.410813152
11	0	0		18	1009.03288	0.403613152
12	0	0		18	991.0328797	0.396413152
13	0	0		18	973.0328797	0.389213152
14	0	0		18	955.0328797	0.382013152
15	0	0		18	937.0328797	0.374813152
16	0	0		18	919.0328797	0.367613152
17	0	0		18	901.0328797	0.360413152
18	0	0		18	883.0328797	0.353213152
19	0	0		18	865.0328797	0.346013152
20	0	0		18	847.0328797	0.338813152
21	0	0		18	829.0328797	0.331613152
22	0	0		18	811.0328797	0.324413152
23	0	0		18	793.0328797	0.317213152
24	0	0		18	775.0328797	0.310013152
25	0	0		18	757.0328797	0.302813152
26	0	0		18	739.0328797	0.295613152
27	0	0		18	721.0328797	0.288413152
28	0	0		18	703.0328797	0.281213152
29	0	0		18	685.0328797	0.274013152
30	33	387.1558845		0	1072.188764	0.428875506
31	0	0		0	1072.188764	0.428875506
November						
1	0	0		0	1072.188764	0.428875506
2	43	504.4758495		0	1576.664614	0.630665845
3	0	0		0	1576.664614	0.630665845
4	0	0		0	1576.664614	0.630665845
5	0	0		0	1576.664614	0.630665845
6	0	0		18	1558.664614	0.623465845
7	4	46.927986		0	1605.5926	0.64223704
8	0	0		0	1605.5926	0.64223704
9	0	0		0	1605.5926	0.64223704
10	0	0		0	1605.5926	0.64223704

11	24	281.567916		0	1887.160516	0.754864206
12	0	0		0	1887.160516	0.754864206
13	0	0		0	1887.160516	0.754864206
14	0	0		0	1887.160516	0.754864206
15	0	0		18	1869.160516	0.747664206
16	0	0		18	1851.160516	0.740464206
17	0	0		18	1833.160516	0.733264206
18	0	0		18	1815.160516	0.726064206
19	0	0		18	1797.160516	0.718864206
20	75	879.8997375		0	2677.060253	1.070824101
21	0	0		0	2677.060253	1.070824101
22	0	0		0	2677.060253	1.070824101
23	0	0		0	2677.060253	1.070824101
24	0	0		18	2659.060253	1.063624101
25	22	258.103923		0	2917.164176	1.166865671
26	35	410.6198775		0	3327.784054	1.331113622
27	0	0		0	3327.784054	1.331113622
28	0	0		0	3327.784054	1.331113622
29	0	0		0	3327.784054	1.331113622
30	0	0		18	3309.784054	1.323913622
Desenber						
1	0	0		18	3291.784054	1.316713622
2	0	0		18	3273.784054	1.309513622
3	0	0		18	3255.784054	1.302313622
4	0	0		18	3237.784054	1.295113622
5	0	0		18	3219.784054	1.287913622
6	0	0		18	3201.784054	1.280713622
7	13	152.5159545		0	3354.300008	1.341720003
8	14	164.247951		0	3518.547959	1.407419184
9	0	0		0	3518.547959	1.407419184
10	30	351.959895		0	3870.507854	1.548203142
11	45	527.9398425		0	4398.447697	1.759379079
12	0	0		0	4398.447697	1.759379079
13	49	574.8678285		0	4973.315525	1.98932621
14	35	410.6198775		0	5383.935403	2.153574161
15	53	621.7958145	1200	0	4805.731217	1.922292487
16	27	316.7639055		0	5122.495123	2.048998049
17	60	703.91979		0	5826.414913	2.330565965
18	0	0		0	5826.414913	2.330565965
19	0	0		0	5826.414913	2.330565965
20	0	0		0	5826.414913	2.330565965
21	0	0		18	5808.414913	2.323365965
22	0	0		18	5790.414913	2.316165965
23	0	0		18	5772.414913	2.308965965
24	0	0		18	5754.414913	2.301765965
25	0	0		18	5736.414913	2.294565965
26	0	0		18	5718.414913	2.287365965
27	20	234.63993		0	5953.054843	2.381221937
28	60	703.91979	1200	0	5456.974633	2.182789853
29	0	0		0	5456.974633	2.182789853
30	0	0		0	5456.974633	2.182789853
31	24	281.567916		0	5738.542549	2.29541702

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3 )	tinggi air (m)
1	4.8	66.858401		0	5245.022333	1.748340778
2	10	139.28834		0	5384.310668	1.794770223
3	36.5	508.40242		0	5892.713091	1.964237697
4	0	0		0	5892.713091	1.964237697
5	22	306.43434		0	6199.147428	2.066382476
6	7	97.501835		0	6296.649262	2.098883087
7	0	0		0	6296.649262	2.098883087
8	0	0		0	6296.649262	2.098883087
9	22.3	310.61299		0	6607.262249	2.20242075
10	16	222.86134		0	6830.123585	2.276707862
11	15	208.9325		0	7039.056088	2.346352029
12	53	738.22818		0	7777.284263	2.592428088
13	27	376.0785		0	8153.362768	2.717787589
14	12	167.146	1500	0	6820.50877	2.273502923
15	25	348.22084		0	7168.729607	2.389576536
16	0	0		0	7168.729607	2.389576536
17	0	0		0	7168.729607	2.389576536
18	0	0		0	7168.729607	2.389576536
19	2	27.857667		0	7196.587274	2.398862425
20	10	139.28834		0	7335.875609	2.44529187
21	0	0		0	7335.875609	2.44529187
22	0	0		0	7335.875609	2.44529187
23	7.7	107.25202		0	7443.127627	2.481042542
24	0	0		0	7443.127627	2.481042542
25	44	612.86867		0	8055.996301	2.6853321
26	0	0		0	8055.996301	2.6853321
27	0	0		0	8055.996301	2.6853321
28	7	97.501835		0	8153.498136	2.717832712
29	0	0		0	8153.498136	2.717832712
30	102	1420.741	1500	0	8074.239153	2.691413051
31	54	752.15701		0	8826.396162	2.942132054
Februari						
1	4	55.715334		0	8882.111496	2.960703832
2	0	0		0	8882.111496	2.960703832
3	8.2	114.21643		0	8996.32793	2.998775977
4	40	557.15334	1500	0	8053.48127	2.684493757
5	9	125.3595		0	8178.840772	2.726280257
6	0.9	12.53595		0	8191.376722	2.730458907
7	3.5	48.750917		0	8240.127639	2.746709213
8	0	0		0	8240.127639	2.746709213
9	4.7	65.465517		0	8305.593157	2.768531052
10	16.2	225.6471		0	8531.24026	2.843746753
11	1	13.928834		0	8545.169093	2.848389698
12	0	0		0	8545.169093	2.848389698
13	0	0		0	8545.169093	2.848389698
14	60	835.73001	1500	0	7880.899103	2.626966368
15	27.5	383.04292	1500	0	6763.942024	2.254647341
16	0	0		0	6763.942024	2.254647341
17	11.4	158.7887		0	6922.730726	2.307576909
18	1	13.928834		0	6936.65956	2.312219853
19	12.3	171.32465		0	7107.984212	2.369328071
20	0	0		0	7107.984212	2.369328071
21	0	0		0	7107.984212	2.369328071
22	2	27.857667		0	7135.841879	2.37861396
23	0	0		0	7135.841879	2.37861396
24	0	0		0	7135.841879	2.37861396
25	1.1	15.321717		0	7151.163596	2.383721199
26	2	27.857667		0	7179.021263	2.393007088
27	2.1	29.25055		0	7208.271813	2.402757271
28	0	0		0	7208.271813	2.402757271
Maret						
1	0	0		0	7208.271813	2.402757271
2	8	111.43067		0	7319.702481	2.439900827
3	0	0		0	7319.702481	2.439900827
4	42	585.01101		0	7904.713488	2.634904496
5	0	0		0	7904.713488	2.634904496
6	0.9	12.53595		0	7917.249438	2.639083146
7	5.5	76.608584		0	7993.858022	2.664619341
8	15	208.9325		0	8202.790525	2.734263508
9	7	97.501835		0	8300.292359	2.76676412

10	5	69.644168		0	8369.936527	2.789978842
11	35	487.50917	1500	0	7357.445699	2.4524819
12	0	0		0	7357.445699	2.4524819
13	0	0		0	7357.445699	2.4524819
14	0	0		0	7357.445699	2.4524819
15	0	0		18	7339.445699	2.4464819
16	20	278.57667		0	7618.022369	2.53934079
17	0	0		0	7618.022369	2.53934079
18	0	0		0	7618.022369	2.53934079
19	0	0		0	7618.022369	2.53934079
20	0	0		18	7600.022369	2.53334079
21	23	320.36317		0	7920.38554	2.640128513
22	20	278.57667		0	8198.96221	2.732987403
23	0	0		0	8198.96221	2.732987403
24	0	0		0	8198.96221	2.732987403
25	0	0		0	8198.96221	2.732987403
26	20	278.57667		0	8477.53888	2.825846293
27	0	0		0	8477.53888	2.825846293
28	0	0		0	8477.53888	2.825846293
29	0	0		0	8477.53888	2.825846293
30	0	0		18	8459.53888	2.819846293
31	0	0		18	8441.53888	2.813846293
April						
1	0	0		18	8423.53888	2.807846293
2	0	0		18	8405.53888	2.801846293
3	0	0		18	8387.53888	2.795846293
4	0	0		18	8369.53888	2.789846293
5	0	0		18	8351.53888	2.783846293
6	15	208.9325		0	8560.471382	2.853490461
7	0	0		0	8560.471382	2.853490461
8	0	0		0	8560.471382	2.853490461
9	7	97.501835		0	8657.973217	2.885991072
10	0	0		0	8657.973217	2.885991072
11	9	125.3595		0	8783.332718	2.927777573
12	0	0		0	8783.332718	2.927777573
13	20	278.57667	1500	0	7561.909388	2.520636463
14	0	0		0	7561.909388	2.520636463
15	0	0		0	7561.909388	2.520636463
16	0	0		0	7561.909388	2.520636463
17	0	0		18	7543.909388	2.514636463
18	0	0		18	7525.909388	2.508636463
19	0	0		18	7507.909388	2.502636463
20	0	0		18	7489.909388	2.496636463
21	0	0		18	7471.909388	2.490636463
22	0	0		18	7453.909388	2.484636463
23	0	0		18	7435.909388	2.478636463
24	0	0		18	7417.909388	2.472636463
25	0	0		18	7399.909388	2.466636463
26	0	0		18	7381.909388	2.460636463
27	0	0		18	7363.909388	2.454636463
28	0	0		18	7345.909388	2.448636463
29	0	0		18	7327.909388	2.442636463
30	32	445.72267		0	7773.63206	2.591210687

Mei						
1	0	0		0	7773.63206	2.591210687
2	30	417.86501		0	8191.497065	2.730499022
3	0	0		0	8191.497065	2.730499022
4	0	0		0	8191.497065	2.730499022
5	25	348.22084		0	8539.717903	2.846572634
6	0	0		0	8539.717903	2.846572634
7	25	348.22084		0	8887.93874	2.962646247
8	14	195.00367	1500	0	7582.942409	2.52764747
9	0	0		0	7582.942409	2.52764747
10	0	0		0	7582.942409	2.52764747
11	3	41.786501		0	7624.72891	2.541576303
12	0	0		0	7624.72891	2.541576303
13	0	0		0	7624.72891	2.541576303
14	0	0		0	7624.72891	2.541576303
15	0	0		18	7606.72891	2.535576303
16	0	0		18	7588.72891	2.529576303
17	0	0		18	7570.72891	2.523576303
18	0	0		18	7552.72891	2.517576303
19	0	0		18	7534.72891	2.511576303
20	0	0		18	7516.72891	2.505576303
21	0	0		18	7498.72891	2.499576303
22	0	0		18	7480.72891	2.493576303
23	0	0		18	7462.72891	2.487576303
24	0	0		18	7444.72891	2.481576303
25	0	0		18	7426.72891	2.475576303
26	0	0		18	7408.72891	2.469576303
27	0	0		18	7390.72891	2.463576303
28	0	0		18	7372.72891	2.457576303
29	0	0		18	7354.72891	2.451576303
30	0	0		18	7336.72891	2.445576303
31	0	0		18	7318.72891	2.439576303
Juni						
1	0	0		18	7300.72891	2.433576303
2	0	0		18	7282.72891	2.427576303
3	0	0		18	7264.72891	2.421576303
4	0	0		18	7246.72891	2.415576303
5	0	0		18	7228.72891	2.409576303
6	0	0		18	7210.72891	2.403576303
7	0	0		18	7192.72891	2.397576303
8	12	167.146		0	7359.874912	2.453291637
9	0	0		0	7359.874912	2.453291637
10	0	0		0	7359.874912	2.453291637
11	0	0		0	7359.874912	2.453291637
12	2	27.857667		0	7387.732579	2.462577526
13	0	0		0	7387.732579	2.462577526
14	0	0		0	7387.732579	2.462577526
15	0	0		0	7387.732579	2.462577526
16	0	0		18	7369.732579	2.456577526
17	0	0		18	7351.732579	2.450577526
18	3	41.786501		0	7393.519079	2.46450636
19	10	139.28834		0	7532.807414	2.510935805
20	10	139.28834		0	7672.095749	2.55736525
21	0	0		0	7672.095749	2.55736525
22	4	55.715334		0	7727.811083	2.575937028
23	0	0		0	7727.811083	2.575937028
24	0	0		0	7727.811083	2.575937028
25	0	0		0	7727.811083	2.575937028
26	0	0		18	7709.811083	2.569937028
27	0	0		18	7691.811083	2.563937028
28	0	0		18	7673.811083	2.557937028
29	0	0		18	7655.811083	2.551937028
30	0	0		18	7637.811083	2.545937028
Juli						
1	0	0		18	7619.811083	2.539937028
2	0	0		18	7601.811083	2.533937028
3	0	0		18	7583.811083	2.527937028
4	0	0		18	7565.811083	2.521937028
5	0	0		18	7547.811083	2.515937028
6	0	0		18	7529.811083	2.509937028
7	0	0		18	7511.811083	2.503937028
8	0	0		18	7493.811083	2.497937028
9	0	0		18	7475.811083	2.491937028
10	0	0		18	7457.811083	2.485937028



11	0	0		18	7439.811083	2.479937028
12	0	0		18	7421.811083	2.473937028
13	0	0		18	7403.811083	2.467937028
14	0	0		18	7385.811083	2.461937028
15	0	0		18	7367.811083	2.455937028
16	0	0		18	7349.811083	2.449937028
17	0	0		18	7331.811083	2.443937028
18	0	0		18	7313.811083	2.437937028
19	0	0		18	7295.811083	2.431937028
20	0	0		18	7277.811083	2.425937028
21	0	0		18	7259.811083	2.419937028
22	0	0		18	7241.811083	2.413937028
23	0	0		18	7223.811083	2.407937028
24	0	0		18	7205.811083	2.401937028
25	0	0		18	7187.811083	2.395937028
26	0	0		18	7169.811083	2.389937028
27	0	0		18	7151.811083	2.383937028
28	0	0		18	7133.811083	2.377937028
29	0	0		18	7115.811083	2.371937028
30	0	0		18	7097.811083	2.365937028
31	0	0		18	7079.811083	2.359937028
Agustus						
1	0	0		18	7061.811083	2.353937028
2	0	0		18	7043.811083	2.347937028
3	0	0		18	7025.811083	2.341937028
4	0	0		18	7007.811083	2.335937028
5	0	0		18	6989.811083	2.329937028
6	0	0		18	6971.811083	2.323937028
7	0	0		18	6953.811083	2.317937028
8	0	0		18	6935.811083	2.311937028
9	0	0		18	6917.811083	2.305937028
10	0	0		18	6899.811083	2.299937028
11	0	0		18	6881.811083	2.293937028
12	0	0		18	6863.811083	2.287937028
13	0	0		18	6845.811083	2.281937028
14	0	0		18	6827.811083	2.275937028
15	0	0		18	6809.811083	2.269937028
16	0	0		18	6791.811083	2.263937028
17	0	0		18	6773.811083	2.257937028
18	0	0		18	6755.811083	2.251937028
19	0	0		18	6737.811083	2.245937028
20	0	0		18	6719.811083	2.239937028
21	0	0		18	6701.811083	2.233937028
22	0	0		18	6683.811083	2.227937028
23	0	0		18	6665.811083	2.221937028
24	0	0		18	6647.811083	2.215937028
25	0	0		18	6629.811083	2.209937028
26	0	0		18	6611.811083	2.203937028
27	0	0		18	6593.811083	2.197937028
28	0	0		18	6575.811083	2.191937028
29	0	0		18	6557.811083	2.185937028
30	0	0		18	6539.811083	2.179937028
31	0	0		18	6521.811083	2.173937028

September						
1	0	0		18	6503.811083	2.167937028
2	0	0		18	6485.811083	2.161937028
3	0	0		18	6467.811083	2.155937028
4	0	0		18	6449.811083	2.149937028
5	0	0		18	6431.811083	2.143937028
6	0	0		18	6413.811083	2.137937028
7	0	0		18	6395.811083	2.131937028
8	0	0		18	6377.811083	2.125937028
9	0	0		18	6359.811083	2.119937028
10	0	0		18	6341.811083	2.113937028
11	0	0		18	6323.811083	2.107937028
12	0	0		18	6305.811083	2.101937028
13	0	0		18	6287.811083	2.095937028
14	0	0		18	6269.811083	2.089937028
15	0	0		18	6251.811083	2.083937028
16	0	0		18	6233.811083	2.077937028
17	0	0		18	6215.811083	2.071937028
18	0	0		18	6197.811083	2.065937028
19	0	0		18	6179.811083	2.059937028
20	0	0		18	6161.811083	2.053937028
21	0	0		18	6143.811083	2.047937028
22	0	0		18	6125.811083	2.041937028
23	0	0		18	6107.811083	2.035937028
24	0	0		18	6089.811083	2.029937028
25	0	0		18	6071.811083	2.023937028
26	0	0		18	6053.811083	2.017937028
27	0	0		18	6035.811083	2.011937028
28	0	0		18	6017.811083	2.005937028
29	0	0		18	5999.811083	1.999937028
30	0	0		18	5981.811083	1.993937028
Oktober						
1	0	0		18	5963.811083	1.987937028
2	0	0		18	5945.811083	1.981937028
3	0	0		18	5927.811083	1.975937028
4	0	0		18	5909.811083	1.969937028
5	0	0		18	5891.811083	1.963937028
6	0	0		18	5873.811083	1.957937028
7	0	0		18	5855.811083	1.951937028
8	0	0		18	5837.811083	1.945937028
9	0	0		18	5819.811083	1.939937028
10	0	0		18	5801.811083	1.933937028
11	0	0		18	5783.811083	1.927937028
12	0	0		18	5765.811083	1.921937028
13	0	0		18	5747.811083	1.915937028
14	0	0		18	5729.811083	1.909937028
15	0	0		18	5711.811083	1.903937028
16	0	0		18	5693.811083	1.897937028
17	0	0		18	5675.811083	1.891937028
18	0	0		18	5657.811083	1.885937028
19	0	0		18	5639.811083	1.879937028
20	0	0		18	5621.811083	1.873937028
21	0	0		18	5603.811083	1.867937028
22	0	0		18	5585.811083	1.861937028
23	0	0		18	5567.811083	1.855937028
24	0	0		18	5549.811083	1.849937028
25	0	0		18	5531.811083	1.843937028
26	0	0		18	5513.811083	1.837937028
27	0	0		18	5495.811083	1.831937028
28	0	0		18	5477.811083	1.825937028
29	0	0		18	5459.811083	1.819937028
30	0	0		18	5441.811083	1.813937028
31	0	0		18	5423.811083	1.807937028
November						
1	0	0		18	5405.811083	1.801937028
2	0	0		18	5387.811083	1.795937028
3	0	0		18	5369.811083	1.789937028
4	0	0		18	5351.811083	1.783937028
5	0	0		18	5333.811083	1.777937028
6	0	0		18	5315.811083	1.771937028
7	0	0		18	5297.811083	1.765937028
8	0	0		18	5279.811083	1.759937028
9	0	0		18	5261.811083	1.753937028
10	5	69.644168		18	5313.455251	1.77115175

11	0	0		18	5295.455251	1.76515175
12	0	0		18	5277.455251	1.75915175
13	0	0		18	5259.455251	1.75315175
14	0	0		18	5241.455251	1.74715175
15	0	0		18	5223.455251	1.74115175
16	0	0		18	5205.455251	1.73515175
17	0	0		18	5187.455251	1.72915175
18	9	125.3595		0	5312.814752	1.770938251
19	0	0		0	5312.814752	1.770938251
20	0	0		0	5312.814752	1.770938251
21	0	0		0	5312.814752	1.770938251
22	0	0		18	5294.814752	1.764938251
23	0	0		18	5276.814752	1.758938251
24	0	0		18	5258.814752	1.752938251
25	0	0		18	5240.814752	1.746938251
26	0	0		18	5222.814752	1.740938251
27	0	0		18	5204.814752	1.734938251
28	0	0		18	5186.814752	1.728938251
29	0	0		18	5168.814752	1.722938251
30	0	0		18	5150.814752	1.716938251
Desember						
1	0	0		18	5132.814752	1.710938251
2	0	0		18	5114.814752	1.704938251
3	0	0		18	5096.814752	1.698938251
4	0	0		18	5078.814752	1.692938251
5	0	0		18	5060.814752	1.686938251
6	0	0		18	5042.814752	1.680938251
7	0	0		18	5024.814752	1.674938251
8	0	0		18	5006.814752	1.668938251
9	0	0		18	4988.814752	1.662938251
10	0	0		18	4970.814752	1.656938251
11	0	0		18	4952.814752	1.650938251
12	0	0		18	4934.814752	1.644938251
13	0	0		18	4916.814752	1.638938251
14	0	0		18	4898.814752	1.632938251
15	0	0		18	4880.814752	1.626938251
16	0	0		18	4862.814752	1.620938251
17	0	0		18	4844.814752	1.614938251
18	0	0		18	4826.814752	1.608938251
19	0	0		18	4808.814752	1.602938251
20	0	0		18	4790.814752	1.596938251
21	0	0		18	4772.814752	1.590938251
22	0	0		18	4754.814752	1.584938251
23	0	0		18	4736.814752	1.578938251
24	0	0		18	4718.814752	1.572938251
25	0	0		18	4700.814752	1.566938251
26	0	0		18	4682.814752	1.560938251
27	0	0		18	4664.814752	1.554938251
28	0	0		18	4646.814752	1.548938251
29	0	0		18	4628.814752	1.542938251
30	0	0		18	4610.814752	1.536938251
31	0	0		18	4592.814752	1.530938251

## ROBOTIKA ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	105.5879685		0	5844.130517	2.337652207
2	0	0		0	5844.130517	2.337652207
3	6	70.391979		0	5914.522496	2.365808999
4	0	0		0	5914.522496	2.365808999
5	10	117.319965		0	6031.842461	2.412736985
6	0	0		0	6031.842461	2.412736985
7	0	0		0	6031.842461	2.412736985
8	0	0		0	6031.842461	2.412736985
9	120	1407.83958		0	7439.682041	2.975872817
10	9	105.5879685	1200	0	6345.27001	2.538108004
11	0	0		0	6345.27001	2.538108004
12	12	140.783958		0	6486.053968	2.594421587
13	60	703.91979	1200	0	5989.973758	2.395989503
14	0	0		18	5971.973758	2.388789503
15	0	0		18	5953.973758	2.381589503
16	0	0		18	5935.973758	2.374389503
17	21	246.3719265		0	6182.345684	2.472938274
18	0	0		0	6182.345684	2.472938274
19	0	0		0	6182.345684	2.472938274
20	0	0		0	6182.345684	2.472938274
21	10	117.319965		0	6299.665649	2.51986626
22	0	0		0	6299.665649	2.51986626
23	0	0		0	6299.665649	2.51986626
24	0	0		0	6299.665649	2.51986626
25	0	0		18	6281.665649	2.51266626
26	0	0		18	6263.665649	2.50546626
27	0	0		18	6245.665649	2.49826626
28	0	0		18	6227.665649	2.49106626
29	0	0		18	6209.665649	2.48386626
30	0	0		18	6191.665649	2.47666626
31	81	950.2917165	1200	0	5941.957366	2.376782946
Februari						
1	0	0		0	5941.957366	2.376782946
2	24	281.567916	1200	0	5023.525282	2.009410113
3	26	305.031909		0	5328.557191	2.131422876
4	0	0		0	5328.557191	2.131422876
5	26	305.031909		0	5633.5891	2.25343564
6	0	0		0	5633.5891	2.25343564
7	0	0		0	5633.5891	2.25343564
8	0	0		0	5633.5891	2.25343564
9	15	175.9799475		0	5809.569047	2.323827619
10	0	0		0	5809.569047	2.323827619
11	0	0		0	5809.569047	2.323827619
12	0	0		0	5809.569047	2.323827619
13	0	0		18	5791.569047	2.316627619
14	0	0		18	5773.569047	2.309427619
15	35	410.6198775	1200	0	4984.188925	1.99367557
16	50	586.599825		0	5570.78875	2.2283155
17	0	0		0	5570.78875	2.2283155
18	0	0		0	5570.78875	2.2283155
19	0	0		0	5570.78875	2.2283155
20	18	211.175937		0	5781.964687	2.312785875
21	15	175.9799475		0	5957.944634	2.383177854
22	30	351.959895	1200	0	5109.904529	2.043961812
23	15	175.9799475	1200	0	4085.884477	1.634353791
24	12	140.783958		0	4226.668435	1.690667374
25	20	234.63993		0	4461.308365	1.784523346
26	21	246.3719265		0	4707.680291	1.883072117
27	50	586.599825	1200	0	4094.280116	1.637712047
28	16	187.711944		0	4281.99206	1.712796824
Maret						
1	16	187.711944	1200	0	3269.704004	1.307881602
2	0	0		0	3269.704004	1.307881602
3	19	222.9079335		0	3492.611938	1.397044775
4	5	58.6599825		0	3551.27192	1.420508768
5	20	234.63993		0	3785.91185	1.51436474
6	22	258.103923		0	4044.015773	1.617606309
7	0	0		0	4044.015773	1.617606309
8	0	0		18	4026.015773	1.610406309
9	0	0		18	4008.015773	1.603206309

10	48	563.135832		0	4571.151605	1.828460642
11	0	0		0	4571.151605	1.828460642
12	84	985.487706	1200	0	4356.639311	1.742655725
13	0	0		0	4356.639311	1.742655725
14	0	0		0	4356.639311	1.742655725
15	0	0		0	4356.639311	1.742655725
16	0	0		18	4338.639311	1.735455725
17	73	856.4357445	1200	0	3995.075056	1.598030022
18	0	0		0	3995.075056	1.598030022
19	0	0		0	3995.075056	1.598030022
20	8	93.855972		0	4088.931028	1.635572411
21	0	0		18	4070.931028	1.628372411
22	0	0		18	4052.931028	1.621172411
23	0	0		18	4034.931028	1.613972411
24	0	0		18	4016.931028	1.606772411
25	0	0		18	3998.931028	1.599572411
26	0	0		18	3980.931028	1.592372411
27	0	0		18	3962.931028	1.585172411
28	0	0		18	3944.931028	1.577972411
29	0	0		18	3926.931028	1.570772411
30	20	234.63993		0	4161.570958	1.664628383
31	5	58.6599825		0	4220.23094	1.688092376
April						
1	10	117.319965		0	4337.550905	1.735020362
2	0	0		0	4337.550905	1.735020362
3	0	0		0	4337.550905	1.735020362
4	0	0		0	4337.550905	1.735020362
5	0	0		18	4319.550905	1.727820362
6	5	58.6599825		0	4378.210888	1.751284355
7	0	0		0	4378.210888	1.751284355
8	0	0		0	4378.210888	1.751284355
9	0	0		0	4378.210888	1.751284355
10	0	0		18	4360.210888	1.744084355
11	0	0		18	4342.210888	1.736884355
12	0	0		18	4324.210888	1.729684355
13	0	0		18	4306.210888	1.722484355
14	0	0		18	4288.210888	1.715284355
15	0	0		18	4270.210888	1.708084355
16	0	0		18	4252.210888	1.700884355
17	0	0		18	4234.210888	1.693684355
18	0	0		18	4216.210888	1.686484355
19	0	0		18	4198.210888	1.679284355
20	0	0		18	4180.210888	1.672084355
21	10	117.319965		0	4297.530853	1.719012341
22	15	175.9799475		0	4473.5108	1.78940432
23	0	0		0	4473.5108	1.78940432
24	0	0		0	4473.5108	1.78940432
25	0	0		0	4473.5108	1.78940432
26	0	0		18	4455.5108	1.78220432
27	0	0		18	4437.5108	1.77500432
28	10	117.319965		0	4554.830765	1.821932306
29	0	0		0	4554.830765	1.821932306
30	0	0		0	4554.830765	1.821932306

Mei						
1	0	0		0	4554.830765	1.821932306
2	0	0		18	4536.830765	1.814732306
3	0	0		18	4518.830765	1.807532306
4	0	0		18	4500.830765	1.800332306
5	0	0		18	4482.830765	1.793132306
6	0	0		18	4464.830765	1.785932306
7	0	0		18	4446.830765	1.778732306
8	0	0		18	4428.830765	1.771532306
9	0	0		18	4410.830765	1.764332306
10	0	0		18	4392.830765	1.757132306
11	25	293.2999125		0	4686.130678	1.874452271
12	0	0		0	4686.130678	1.874452271
13	23	269.8359195		0	4955.966597	1.982386639
14	0	0		0	4955.966597	1.982386639
15	0	0		0	4955.966597	1.982386639
16	15	175.9799475		0	5131.946545	2.052778618
17	0	0		0	5131.946545	2.052778618
18	21	246.3719265	1200	0	4178.318471	1.671327388
19	0	0		0	4178.318471	1.671327388
20	0	0		0	4178.318471	1.671327388
21	0	0		0	4178.318471	1.671327388
22	0	0		18	4160.318471	1.664127388
23	23	269.8359195		0	4430.154391	1.772061756
24	0	0		0	4430.154391	1.772061756
25	0	0		0	4430.154391	1.772061756
26	0	0		0	4430.154391	1.772061756
27	0	0		18	4412.154391	1.764861756
28	0	0		18	4394.154391	1.757661756
29	0	0		18	4376.154391	1.750461756
30	0	0		18	4358.154391	1.743261756
31	0	0		18	4340.154391	1.736061756
Juni						
1	0	0		18	4322.154391	1.728861756
2	0	0		18	4304.154391	1.721661756
3	0	0		18	4286.154391	1.714461756
4	0	0		18	4268.154391	1.707261756
5	0	0		18	4250.154391	1.700061756
6	0	0		18	4232.154391	1.692861756
7	0	0		18	4214.154391	1.685661756
8	0	0		18	4196.154391	1.678461756
9	0	0		18	4178.154391	1.671261756
10	50	586.599825		0	4764.754216	1.905901686
11	0	0		0	4764.754216	1.905901686
12	0	0		0	4764.754216	1.905901686
13	0	0		0	4764.754216	1.905901686
14	0	0		18	4746.754216	1.898701686
15	0	0		18	4728.754216	1.891501686
16	0	0		18	4710.754216	1.884301686
17	0	0		18	4692.754216	1.877101686
18	0	0		18	4674.754216	1.869901686
19	0	0		18	4656.754216	1.862701686
20	0	0		18	4638.754216	1.855501686
21	0	0		18	4620.754216	1.848301686
22	0	0		18	4602.754216	1.841101686
23	0	0		18	4584.754216	1.833901686
24	0	0		18	4566.754216	1.826701686
25	0	0		18	4548.754216	1.819501686
26	0	0		18	4530.754216	1.812301686
27	0	0		18	4512.754216	1.805101686
28	0	0		18	4494.754216	1.797901686
29	0	0		18	4476.754216	1.790701686
30	0	0		18	4458.754216	1.783501686
Juli						
1	0	0		18	4440.754216	1.776301686
2	0	0		18	4422.754216	1.769101686
3	0	0		18	4404.754216	1.761901686
4	0	0		18	4386.754216	1.754701686
5	0	0		18	4368.754216	1.747501686
6	0	0		18	4350.754216	1.740301686
7	0	0		18	4332.754216	1.733101686
8	0	0		18	4314.754216	1.725901686
9	0	0		18	4296.754216	1.718701686
10	0	0		18	4278.754216	1.711501686

11	0	0		18	4260.754216	1.704301686
12	0	0		18	4242.754216	1.697101686
13	0	0		18	4224.754216	1.689901686
14	0	0		18	4206.754216	1.682701686
15	0	0		18	4188.754216	1.675501686
16	0	0		18	4170.754216	1.668301686
17	0	0		18	4152.754216	1.661101686
18	0	0		18	4134.754216	1.653901686
19	0	0		18	4116.754216	1.646701686
20	0	0		18	4098.754216	1.639501686
21	0	0		18	4080.754216	1.632301686
22	0	0		18	4062.754216	1.625101686
23	0	0		18	4044.754216	1.617901686
24	0	0		18	4026.754216	1.610701686
25	0	0		18	4008.754216	1.603501686
26	0	0		18	3990.754216	1.596301686
27	0	0		18	3972.754216	1.589101686
28	0	0		18	3954.754216	1.581901686
29	0	0		18	3936.754216	1.574701686
30	0	0		18	3918.754216	1.567501686
31	0	0		18	3900.754216	1.560301686
Agustus						
1	0	0		18	3882.754216	1.553101686
2	0	0		18	3864.754216	1.545901686
3	0	0		18	3846.754216	1.538701686
4	0	0		18	3828.754216	1.531501686
5	0	0		18	3810.754216	1.524301686
6	0	0		18	3792.754216	1.517101686
7	0	0		18	3774.754216	1.509901686
8	0	0		18	3756.754216	1.502701686
9	0	0		18	3738.754216	1.495501686
10	0	0		18	3720.754216	1.488301686
11	0	0		18	3702.754216	1.481101686
12	0	0		18	3684.754216	1.473901686
13	0	0		18	3666.754216	1.466701686
14	0	0		18	3648.754216	1.459501686
15	0	0		18	3630.754216	1.452301686
16	0	0		18	3612.754216	1.445101686
17	0	0		18	3594.754216	1.437901686
18	0	0		18	3576.754216	1.430701686
19	0	0		18	3558.754216	1.423501686
20	0	0		18	3540.754216	1.416301686
21	0	0		18	3522.754216	1.409101686
22	0	0		18	3504.754216	1.401901686
23	0	0		18	3486.754216	1.394701686
24	0	0		18	3468.754216	1.387501686
25	0	0		18	3450.754216	1.380301686
26	0	0		18	3432.754216	1.373101686
27	0	0		18	3414.754216	1.365901686
28	0	0		18	3396.754216	1.358701686
29	0	0		18	3378.754216	1.351501686
30	0	0		18	3360.754216	1.344301686
31	0	0		18	3342.754216	1.337101686

September						
1	0	0		18	3324.754216	1.329901686
2	0	0		18	3306.754216	1.322701686
3	0	0		18	3288.754216	1.315501686
4	0	0		18	3270.754216	1.308301686
5	0	0		18	3252.754216	1.301101686
6	0	0		18	3234.754216	1.293901686
7	0	0		18	3216.754216	1.286701686
8	0	0		18	3198.754216	1.279501686
9	0	0		18	3180.754216	1.272301686
10	0	0		18	3162.754216	1.265101686
11	0	0		18	3144.754216	1.257901686
12	0	0		18	3126.754216	1.250701686
13	0	0		18	3108.754216	1.243501686
14	0	0		18	3090.754216	1.236301686
15	0	0		18	3072.754216	1.229101686
16	0	0		18	3054.754216	1.221901686
17	0	0		18	3036.754216	1.214701686
18	0	0		18	3018.754216	1.207501686
19	0	0		18	3000.754216	1.200301686
20	0	0		18	2982.754216	1.193101686
21	0	0		18	2964.754216	1.185901686
22	0	0		18	2946.754216	1.178701686
23	0	0		18	2928.754216	1.171501686
24	0	0		18	2910.754216	1.164301686
25	0	0		18	2892.754216	1.157101686
26	0	0		18	2874.754216	1.149901686
27	0	0		18	2856.754216	1.142701686
28	0	0		18	2838.754216	1.135501686
29	0	0		18	2820.754216	1.128301686
30	0	0		18	2802.754216	1.121101686
Oktober						
1	0	0		18	2784.754216	1.113901686
2	0	0		18	2766.754216	1.106701686
3	0	0		18	2748.754216	1.099501686
4	0	0		18	2730.754216	1.092301686
5	0	0		18	2712.754216	1.085101686
6	0	0		18	2694.754216	1.077901686
7	0	0		18	2676.754216	1.070701686
8	0	0		18	2658.754216	1.063501686
9	0	0		18	2640.754216	1.056301686
10	0	0		18	2622.754216	1.049101686
11	0	0		18	2604.754216	1.041901686
12	0	0		18	2586.754216	1.034701686
13	0	0		18	2568.754216	1.027501686
14	0	0		18	2550.754216	1.020301686
15	0	0		18	2532.754216	1.013101686
16	0	0		18	2514.754216	1.005901686
17	0	0		18	2496.754216	0.998701686
18	0	0		18	2478.754216	0.991501686
19	0	0		18	2460.754216	0.984301686
20	0	0		18	2442.754216	0.977101686
21	0	0		18	2424.754216	0.969901686
22	0	0		18	2406.754216	0.962701686
23	0	0		18	2388.754216	0.955501686
24	0	0		18	2370.754216	0.948301686
25	0	0		18	2352.754216	0.941101686
26	0	0		18	2334.754216	0.933901686
27	0	0		18	2316.754216	0.926701686
28	0	0		18	2298.754216	0.919501686
29	0	0		18	2280.754216	0.912301686
30	0	0		18	2262.754216	0.905101686
31	0	0		18	2244.754216	0.897901686
November						
1	0	0		18	2226.754216	0.890701686
2	0	0		18	2208.754216	0.883501686
3	0	0		18	2190.754216	0.876301686
4	0	0		18	2172.754216	0.869101686
5	0	0		18	2154.754216	0.861901686
6	0	0		18	2136.754216	0.854701686
7	0	0		18	2118.754216	0.847501686
8	0	0		18	2100.754216	0.840301686
9	0	0		18	2082.754216	0.833101686
10	0	0		18	2064.754216	0.825901686



11	0	0		18	2046.754216	0.818701686
12	0	0		18	2028.754216	0.811501686
13	0	0		18	2010.754216	0.804301686
14	0	0		18	1992.754216	0.797101686
15	0	0		18	1974.754216	0.789901686
16	0	0		18	1956.754216	0.782701686
17	0	0		18	1938.754216	0.775501686
18	0	0		18	1920.754216	0.768301686
19	0	0		18	1902.754216	0.761101686
20	0	0		18	1884.754216	0.753901686
21	0	0		18	1866.754216	0.746701686
22	0	0		18	1848.754216	0.739501686
23	0	0		18	1830.754216	0.732301686
24	0	0		18	1812.754216	0.725101686
25	0	0		18	1794.754216	0.717901686
26	0	0		18	1776.754216	0.710701686
27	0	0		18	1758.754216	0.703501686
28	0	0		18	1740.754216	0.696301686
29	0	0		18	1722.754216	0.689101686
30	0	0		18	1704.754216	0.681901686
Desenber						
1	0	0		18	1686.754216	0.674701686
2	0	0		18	1668.754216	0.667501686
3	0	0		18	1650.754216	0.660301686
4	0	0		18	1632.754216	0.653101686
5	0	0		18	1614.754216	0.645901686
6	0	0		18	1596.754216	0.638701686
7	0	0		18	1578.754216	0.631501686
8	0	0		18	1560.754216	0.624301686
9	0	0		18	1542.754216	0.617101686
10	0	0		18	1524.754216	0.609901686
11	0	0		18	1506.754216	0.602701686
12	0	0		18	1488.754216	0.595501686
13	0	0		18	1470.754216	0.588301686
14	0	0		18	1452.754216	0.581101686
15	0	0		18	1434.754216	0.573901686
16	0	0		18	1416.754216	0.566701686
17	0	0		18	1398.754216	0.559501686
18	0	0		18	1380.754216	0.552301686
19	0	0		18	1362.754216	0.545101686
20	0	0		18	1344.754216	0.537901686
21	0	0		18	1326.754216	0.530701686
22	0	0		18	1308.754216	0.523501686
23	0	0		18	1290.754216	0.516301686
24	0	0		18	1272.754216	0.509101686
25	0	0		18	1254.754216	0.501901686
26	0	0		18	1236.754216	0.494701686
27	0	0		18	1218.754216	0.487501686
28	0	0		18	1200.754216	0.480301686
29	0	0		18	1182.754216	0.473101686
30	0	0		18	1164.754216	0.465901686
31	0	0		18	1146.754216	0.458701686

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	5	69.644168		0	4662.45892	1.554152973
2	0	0		0	4662.45892	1.554152973
3	0	0		0	4662.45892	1.554152973
4	0	0		0	4662.45892	1.554152973
5	0	0		18	4644.45892	1.548152973
6	35	487.50917		0	5131.968092	1.710656031
7	52	724.29934		0	5856.267434	1.952089145
8	9	125.3595		0	5981.626936	1.993875645
9	0	0		0	5981.626936	1.993875645
10	34	473.58034		0	6455.207275	2.151735758
11	5	69.644168		0	6524.851442	2.174950481
12	6	83.573001		0	6608.424443	2.202808148
13	0	0		0	6608.424443	2.202808148
14	0	0		0	6608.424443	2.202808148
15	0	0		0	6608.424443	2.202808148
16	0	0		18	6590.424443	2.196808148
17	0	0		18	6572.424443	2.190808148
18	0	0		18	6554.424443	2.184808148
19	0	0		18	6536.424443	2.178808148
20	0	0		18	6518.424443	2.172808148
21	0	0		18	6500.424443	2.166808148
22	0	0		18	6482.424443	2.160808148
23	0	0		18	6464.424443	2.154808148
24	0	0		18	6446.424443	2.148808148
25	0	0		18	6428.424443	2.142808148
26	0	0		18	6410.424443	2.136808148
27	6	83.573001		0	6493.997444	2.164665815
28	2	27.857667		0	6521.855111	2.173951704
29	15	208.9325		0	6730.787614	2.243595871
30	0	0		0	6730.787614	2.243595871
31	0	0		0	6730.787614	2.243595871
Februari						
1	0	0		0	6730.787614	2.243595871
2	0	0		18	6712.787614	2.237595871
3	0	0		18	6694.787614	2.231595871
4	3	41.786501		0	6736.574114	2.245524705
5	17	236.79017		0	6973.364284	2.324454761
6	0	0		0	6973.364284	2.324454761
7	0	0		0	6973.364284	2.324454761
8	0	0		0	6973.364284	2.324454761
9	9	125.3595		0	7098.723785	2.366241262
10	6	83.573001		0	7182.296786	2.394098929
11	0	0		0	7182.296786	2.394098929
12	0	0		0	7182.296786	2.394098929
13	0	0		0	7182.296786	2.394098929
14	0	0		18	7164.296786	2.388098929
15	0	0		18	7146.296786	2.382098929
16	0	0		18	7128.296786	2.376098929
17	4	55.715334		0	7184.01212	2.394670707
18	2	27.857667		0	7211.869787	2.403956596
19	0	0		0	7211.869787	2.403956596
20	0	0		0	7211.869787	2.403956596
21	0	0		0	7211.869787	2.403956596
22	30	417.86501		0	7629.734792	2.543244931
23	20	278.57667		0	7908.311462	2.636103821
24	35	487.50917		0	8395.820635	2.798606878
25	41	571.08217		0	8966.902808	2.988967603
26	37	515.36684	1500	0	7982.269648	2.660756549
27	0	0		0	7982.269648	2.660756549
28	10	139.28834		0	8121.557983	2.707185994
Maret						
1	12	167.146		0	8288.703985	2.762901328
2	31	431.79384		0	8720.497823	2.906832608
3	35	487.50917	1500	0	7708.006996	2.569335665
4	35	487.50917	1500	0	6695.516168	2.231838723
5	39	543.22451		0	7238.740675	2.412913558
6	0	0		0	7238.740675	2.412913558
7	13	181.07484		0	7419.81551	2.473271837
8	0	0		0	7419.81551	2.473271837
9	11	153.21717	1500	0	6073.032679	2.024344226

10	24	334.292		0	6407.324683	2.135774894
11	53	738.22818	1500	0	5645.552858	1.881850953
12	0	0		0	5645.552858	1.881850953
13	31	431.79384		0	6077.346697	2.025782232
14	37	515.36684		0	6592.713536	2.197571179
15	42	585.01101		18	7159.724543	2.386574848
16	0	0		0	7159.724543	2.386574848
17	0	0		0	7159.724543	2.386574848
18	15	208.9325		0	7368.657046	2.456219015
19	20	278.57667	1500	0	6147.233716	2.049077905
20	0	0		18	6129.233716	2.043077905
21	15	208.9325		0	6338.166218	2.112722073
22	0	0		0	6338.166218	2.112722073
23	0	0		0	6338.166218	2.112722073
24	0	0		0	6338.166218	2.112722073
25	0	0		18	6320.166218	2.106722073
26	0	0		18	6302.166218	2.100722073
27	0	0		18	6284.166218	2.094722073
28	20	278.57667		0	6562.742888	2.187580963
29	0	0		0	6562.742888	2.187580963
30	15	208.9325		0	6771.675391	2.25722513
31	0	0		0	6771.675391	2.25722513
April						
1	0	0		0	6771.675391	2.25722513
2	0	0		0	6771.675391	2.25722513
3	0	0		18	6753.675391	2.25122513
4	0	0		18	6735.675391	2.24522513
5	0	0		18	6717.675391	2.23922513
6	0	0		18	6699.675391	2.23322513
7	0	0		18	6681.675391	2.22722513
8	0	0		18	6663.675391	2.22122513
9	0	0		18	6645.675391	2.21522513
10	4	55.715334		0	6701.390725	2.233796908
11	0	0		0	6701.390725	2.233796908
12	0	0		0	6701.390725	2.233796908
13	9	125.3595		0	6826.750226	2.275583409
14	0	0		0	6826.750226	2.275583409
15	0	0		0	6826.750226	2.275583409
16	0	0		0	6826.750226	2.275583409
17	0	0		18	6808.750226	2.269583409
18	0	0		18	6790.750226	2.263583409
19	0	0		18	6772.750226	2.257583409
20	0	0		18	6754.750226	2.251583409
21	0	0		18	6736.750226	2.245583409
22	0	0		18	6718.750226	2.239583409
23	0	0		18	6700.750226	2.233583409
24	0	0		18	6682.750226	2.227583409
25	0	0		18	6664.750226	2.221583409
26	21	292.5055		0	6957.25573	2.319085243
27	0	0		0	6957.25573	2.319085243
28	0	0		0	6957.25573	2.319085243
29	0	0		0	6957.25573	2.319085243
30	0	0		18	6939.25573	2.313085243

Mei						
1	0	0		18	6921.25573	2.307085243
2	0	0		18	6903.25573	2.301085243
3	0	0		18	6885.25573	2.295085243
4	0	0		18	6867.25573	2.289085243
5	0	0		18	6849.25573	2.283085243
6	0	0		18	6831.25573	2.277085243
7	0	0		18	6813.25573	2.271085243
8	0	0		18	6795.25573	2.265085243
9	0	0		18	6777.25573	2.259085243
10	0	0		18	6759.25573	2.253085243
11	0	0		18	6741.25573	2.247085243
12	0	0		18	6723.25573	2.241085243
13	0	0		18	6705.25573	2.235085243
14	0	0		18	6687.25573	2.229085243
15	0	0		18	6669.25573	2.223085243
16	12	167.146		0	6836.401732	2.278800577
17	36	501.43801		0	7337.839738	2.445946579
18	0	0		0	7337.839738	2.445946579
19	0	0		0	7337.839738	2.445946579
20	0	0		0	7337.839738	2.445946579
21	0	0		18	7319.839738	2.439946579
22	0	0		18	7301.839738	2.433946579
23	0	0		18	7283.839738	2.427946579
24	0	0		18	7265.839738	2.421946579
25	0	0		18	7247.839738	2.415946579
26	9	125.3595		0	7373.199239	2.45773308
27	0	0		0	7373.199239	2.45773308
28	0	0		0	7373.199239	2.45773308
29	0	0		0	7373.199239	2.45773308
30	7	97.501835		0	7470.701074	2.490233691
31	0	0		0	7470.701074	2.490233691
Juni						
1	0	0		0	7470.701074	2.490233691
2	0	0		0	7470.701074	2.490233691
3	0	0		18	7452.701074	2.484233691
4	0	0		18	7434.701074	2.478233691
5	0	0		18	7416.701074	2.472233691
6	0	0		18	7398.701074	2.466233691
7	0	0		18	7380.701074	2.460233691
8	0	0		18	7362.701074	2.454233691
9	0	0		18	7344.701074	2.448233691
10	0	0		18	7326.701074	2.442233691
11	45	626.79751	1500	18	6435.498581	2.145166194
12	0	0		18	6417.498581	2.139166194
13	0	0		18	6399.498581	2.133166194
14	0	0		18	6381.498581	2.127166194
15	0	0		18	6363.498581	2.121166194
16	0	0		18	6345.498581	2.115166194
17	0	0		18	6327.498581	2.109166194
18	0	0		18	6309.498581	2.103166194
19	0	0		18	6291.498581	2.097166194
20	0	0		18	6273.498581	2.091166194
21	0	0		18	6255.498581	2.085166194
22	0	0		18	6237.498581	2.079166194
23	0	0		18	6219.498581	2.073166194
24	0	0		18	6201.498581	2.067166194
25	0	0		18	6183.498581	2.061166194
26	0	0		18	6165.498581	2.055166194
27	0	0		18	6147.498581	2.049166194
28	0	0		18	6129.498581	2.043166194
29	0	0		18	6111.498581	2.037166194
30	0	0		18	6093.498581	2.031166194
Juli						
1	0	0		18	6075.498581	2.025166194
2	0	0		18	6057.498581	2.019166194
3	0	0		18	6039.498581	2.013166194
4	0	0		18	6021.498581	2.007166194
5	0	0		18	6003.498581	2.001166194
6	0	0		18	5985.498581	1.995166194
7	0	0		18	5967.498581	1.989166194
8	0	0		18	5949.498581	1.983166194
9	0	0		18	5931.498581	1.977166194
10	0	0		18	5913.498581	1.971166194

11	0	0		18	5895.498581	1.965166194
12	0	0		18	5877.498581	1.959166194
13	0	0		18	5859.498581	1.953166194
14	0	0		18	5841.498581	1.947166194
15	0	0		18	5823.498581	1.941166194
16	0	0		18	5805.498581	1.935166194
17	0	0		18	5787.498581	1.929166194
18	0	0		18	5769.498581	1.923166194
19	0	0		18	5751.498581	1.917166194
20	0	0		18	5733.498581	1.911166194
21	0	0		18	5715.498581	1.905166194
22	0	0		18	5697.498581	1.899166194
23	0	0		18	5679.498581	1.893166194
24	0	0		18	5661.498581	1.887166194
25	0	0		18	5643.498581	1.881166194
26	0	0		18	5625.498581	1.875166194
27	0	0		18	5607.498581	1.869166194
28	0	0		18	5589.498581	1.863166194
29	0	0		18	5571.498581	1.857166194
30	0	0		18	5553.498581	1.851166194
31	0	0		18	5535.498581	1.845166194
Agustus						
1	0	0		18	5517.498581	1.839166194
2	0	0		18	5499.498581	1.833166194
3	0	0		18	5481.498581	1.827166194
4	0	0		18	5463.498581	1.821166194
5	0	0		18	5445.498581	1.815166194
6	0	0		18	5427.498581	1.809166194
7	0	0		18	5409.498581	1.803166194
8	0	0		18	5391.498581	1.797166194
9	0	0		18	5373.498581	1.791166194
10	0	0		18	5355.498581	1.785166194
11	0	0		18	5337.498581	1.779166194
12	0	0		18	5319.498581	1.773166194
13	0	0		18	5301.498581	1.767166194
14	0	0		18	5283.498581	1.761166194
15	0	0		18	5265.498581	1.755166194
16	0	0		18	5247.498581	1.749166194
17	0	0		18	5229.498581	1.743166194
18	0	0		18	5211.498581	1.737166194
19	0	0		18	5193.498581	1.731166194
20	0	0		18	5175.498581	1.725166194
21	0	0		18	5157.498581	1.719166194
22	0	0		18	5139.498581	1.713166194
23	0	0		18	5121.498581	1.707166194
24	0	0		18	5103.498581	1.701166194
25	0	0		18	5085.498581	1.695166194
26	0	0		18	5067.498581	1.689166194
27	0	0		18	5049.498581	1.683166194
28	0	0		18	5031.498581	1.677166194
29	0	0		18	5013.498581	1.671166194
30	0	0		18	4995.498581	1.665166194
31	0	0		18	4977.498581	1.659166194

September						
1	0	0		18	4959.498581	1.653166194
2	0	0		18	4941.498581	1.647166194
3	0	0		18	4923.498581	1.641166194
4	0	0		18	4905.498581	1.635166194
5	0	0		18	4887.498581	1.629166194
6	0	0		18	4869.498581	1.623166194
7	0	0		18	4851.498581	1.617166194
8	0	0		18	4833.498581	1.611166194
9	0	0		18	4815.498581	1.605166194
10	0	0		18	4797.498581	1.599166194
11	0	0		18	4779.498581	1.593166194
12	0	0		18	4761.498581	1.587166194
13	0	0		18	4743.498581	1.581166194
14	0	0		18	4725.498581	1.575166194
15	0	0		18	4707.498581	1.569166194
16	0	0		18	4689.498581	1.563166194
17	0	0		18	4671.498581	1.557166194
18	0	0		18	4653.498581	1.551166194
19	0	0		18	4635.498581	1.545166194
20	0	0		18	4617.498581	1.539166194
21	0	0		18	4599.498581	1.533166194
22	0	0		18	4581.498581	1.527166194
23	0	0		18	4563.498581	1.521166194
24	0	0		18	4545.498581	1.515166194
25	0	0		18	4527.498581	1.509166194
26	0	0		18	4509.498581	1.503166194
27	0	0		18	4491.498581	1.497166194
28	0	0		18	4473.498581	1.491166194
29	0	0		18	4455.498581	1.485166194
30	0	0		18	4437.498581	1.479166194
Oktober						
1	0	0		18	4419.498581	1.473166194
2	0	0		18	4401.498581	1.467166194
3	0	0		18	4383.498581	1.461166194
4	0	0		18	4365.498581	1.455166194
5	0	0		18	4347.498581	1.449166194
6	0	0		18	4329.498581	1.443166194
7	0	0		18	4311.498581	1.437166194
8	0	0		18	4293.498581	1.431166194
9	0	0		18	4275.498581	1.425166194
10	0	0		18	4257.498581	1.419166194
11	0	0		18	4239.498581	1.413166194
12	0	0		18	4221.498581	1.407166194
13	0	0		18	4203.498581	1.401166194
14	0	0		18	4185.498581	1.395166194
15	0	0		18	4167.498581	1.389166194
16	0	0		18	4149.498581	1.383166194
17	0	0		18	4131.498581	1.377166194
18	0	0		18	4113.498581	1.371166194
19	0	0		18	4095.498581	1.365166194
20	0	0		18	4077.498581	1.359166194
21	0	0		18	4059.498581	1.353166194
22	0	0		18	4041.498581	1.347166194
23	0	0		18	4023.498581	1.341166194
24	0	0		18	4005.498581	1.335166194
25	0	0		18	3987.498581	1.329166194
26	0	0		18	3969.498581	1.323166194
27	0	0		18	3951.498581	1.317166194
28	0	0		18	3933.498581	1.311166194
29	0	0		18	3915.498581	1.305166194
30	0	0		18	3897.498581	1.299166194
31	0	0		18	3879.498581	1.293166194
November						
1	0	0		18	3861.498581	1.287166194
2	0	0		18	3843.498581	1.281166194
3	0	0		18	3825.498581	1.275166194
4	0	0		18	3807.498581	1.269166194
5	0	0		18	3789.498581	1.263166194
6	0	0		18	3771.498581	1.257166194
7	0	0		18	3753.498581	1.251166194
8	0	0		18	3735.498581	1.245166194
9	0	0		18	3717.498581	1.239166194
10	0	0		18	3699.498581	1.233166194

11	0	0		18	3681.498581	1.227166194
12	0	0		18	3663.498581	1.221166194
13	0	0		18	3645.498581	1.215166194
14	0	0		18	3627.498581	1.209166194
15	0	0		18	3609.498581	1.203166194
16	0	0		18	3591.498581	1.197166194
17	0	0		18	3573.498581	1.191166194
18	0	0		18	3555.498581	1.185166194
19	0	0		18	3537.498581	1.179166194
20	0	0		18	3519.498581	1.173166194
21	0	0		18	3501.498581	1.167166194
22	0	0		18	3483.498581	1.161166194
23	0	0		18	3465.498581	1.155166194
24	0	0		18	3447.498581	1.149166194
25	0	0		18	3429.498581	1.143166194
26	15	208.9325		0	3638.431084	1.212810361
27	43	598.93984		0	4237.370924	1.412456975
28	14	195.00367		0	4432.374593	1.477458198
29	0	0		0	4432.374593	1.477458198
30	0	0		0	4432.374593	1.477458198
Desember						
1	0	0		0	4432.374593	1.477458198
2	10	139.28834		0	4571.662928	1.523887643
3	15	208.9325		0	4780.595431	1.59353181
4	0	0		0	4780.595431	1.59353181
5	0	0		0	4780.595431	1.59353181
6	13	181.07484		0	4961.670266	1.653890089
7	0	0		0	4961.670266	1.653890089
8	0	0		0	4961.670266	1.653890089
9	0	0		0	4961.670266	1.653890089
10	17	236.79017		0	5198.460436	1.732820145
11	0	0		0	5198.460436	1.732820145
12	17	236.79017		0	5435.250605	1.811750202
13	0	0		0	5435.250605	1.811750202
14	0	0		0	5435.250605	1.811750202
15	10	139.28834		0	5574.53894	1.858179647
16	0	0		0	5574.53894	1.858179647
17	0	0		0	5574.53894	1.858179647
18	0	0		0	5574.53894	1.858179647
19	0	0		18	5556.53894	1.852179647
20	0	0		18	5538.53894	1.846179647
21	0	0		18	5520.53894	1.840179647
22	11	153.21717		0	5673.756109	1.891252036
23	0	0		0	5673.756109	1.891252036
24	0	0		0	5673.756109	1.891252036
25	58	807.87234		0	6481.628452	2.160542817
26	0	0		0	6481.628452	2.160542817
27	0	0		0	6481.628452	2.160542817
28	0	0		0	6481.628452	2.160542817
29	40	557.15334		0	7038.781792	2.346260597
30	0	0		0	7038.781792	2.346260597
31	0	0		0	7038.781792	2.346260597

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	9	105.5879685		0	1252.342184	0.500936874
2	0	0		0	1252.342184	0.500936874
3	6	70.391979		0	1322.734163	0.529093665
4	0	0		0	1322.734163	0.529093665
5	10	117.319965		0	1440.054128	0.576021651
6	0	0		0	1440.054128	0.576021651
7	0	0		0	1440.054128	0.576021651
8	0	0		0	1440.054128	0.576021651
9	120	1407.83958		0	2847.893708	1.139157483
10	9	105.5879685		0	2953.481677	1.181392671
11	0	0		0	2953.481677	1.181392671
12	12	140.783958		0	3094.265635	1.237706254
13	60	703.91979		0	3798.185425	1.51927417
14	0	0		0	3798.185425	1.51927417
15	0	0		0	3798.185425	1.51927417
16	0	0		0	3798.185425	1.51927417
17	21	246.3719265		18	4026.557351	1.61062294
18	0	0		18	4008.557351	1.60342294
19	0	0		0	4008.557351	1.60342294
20	0	0		0	4008.557351	1.60342294
21	10	117.319965		0	4125.877316	1.650350926
22	0	0		0	4125.877316	1.650350926
23	0	0		0	4125.877316	1.650350926
24	0	0		0	4125.877316	1.650350926
25	0	0		0	4125.877316	1.650350926
26	0	0		0	4125.877316	1.650350926
27	0	0		0	4125.877316	1.650350926
28	0	0		0	4125.877316	1.650350926
29	0	0		0	4125.877316	1.650350926
30	0	0		0	4125.877316	1.650350926
31	81	950.2917165		0	5076.169033	2.030467613
Februari						
1	0	0		0	5076.169033	2.030467613
2	24	281.567916		0	5357.736949	2.143094779
3	26	305.031909		0	5662.768858	2.265107543
4	0	0		0	5662.768858	2.265107543
5	26	305.031909		0	5967.800767	2.387120307
6	0	0		0	5967.800767	2.387120307
7	0	0		0	5967.800767	2.387120307
8	0	0		0	5967.800767	2.387120307
9	15	175.9799475		0	6143.780714	2.457512286
10	0	0		0	6143.780714	2.457512286
11	0	0		0	6143.780714	2.457512286
12	0	0		0	6143.780714	2.457512286
13	0	0		0	6143.780714	2.457512286
14	0	0		0	6143.780714	2.457512286
15	35	410.6198775	1200	0	5354.400592	2.141760237
16	50	586.599825	1200	0	4741.000417	1.896400167
17	0	0		0	4741.000417	1.896400167
18	0	0		0	4741.000417	1.896400167
19	0	0		0	4741.000417	1.896400167
20	18	211.175937		0	4952.176354	1.980870541
21	15	175.9799475		0	5128.156301	2.051262521
22	30	351.959895		0	5480.116196	2.192046479
23	15	175.9799475		0	5656.096144	2.262438457
24	12	140.783958		0	5796.880102	2.318752041
25	20	234.63993		0	6031.520032	2.412608013
26	21	246.3719265	1200	0	5077.891958	2.031156783
27	50	586.599825		0	5664.491783	2.265796713
28	16	187.711944		0	5852.203727	2.340881491
Maret						
1	16	187.711944		0	6039.915671	2.415966268
2	0	0		0	6039.915671	2.415966268
3	19	222.9079335		0	6262.823605	2.505129442
4	5	58.6599825		0	6321.483587	2.528593435
5	20	234.63993	1200	0	5356.123517	2.142449407
6	22	258.103923		0	5614.22744	2.245690976
7	0	0		0	5614.22744	2.245690976
8	0	0		0	5614.22744	2.245690976
9	0	0		0	5614.22744	2.245690976



10	48	563.135832		0	6177.363272	2.470945309
11	0	0		0	6177.363272	2.470945309
12	84	985.487706	1200	0	5962.850978	2.385140391
13	0	0		0	5962.850978	2.385140391
14	0	0		18	5944.850978	2.377940391
15	0	0		18	5926.850978	2.370740391
16	0	0		18	5908.850978	2.363540391
17	73	856.4357445	1200	18	5547.286723	2.218914689
18	0	0		0	5547.286723	2.218914689
19	0	0		0	5547.286723	2.218914689
20	8	93.855972		0	5641.142695	2.256457078
21	0	0		0	5641.142695	2.256457078
22	0	0		0	5641.142695	2.256457078
23	0	0		0	5641.142695	2.256457078
24	0	0		0	5641.142695	2.256457078
25	0	0		0	5641.142695	2.256457078
26	0	0		0	5641.142695	2.256457078
27	0	0		0	5641.142695	2.256457078
28	0	0		0	5641.142695	2.256457078
29	0	0		0	5641.142695	2.256457078
30	20	234.63993		0	5875.782625	2.35031305
31	5	58.6599825		0	5934.442607	2.373777043
April						
1	10	117.319965	1200	0	4851.762572	1.940705029
2	0	0		0	4851.762572	1.940705029
3	0	0		0	4851.762572	1.940705029
4	0	0		0	4851.762572	1.940705029
5	0	0		0	4851.762572	1.940705029
6	5	58.6599825		0	4910.422555	1.964169022
7	0	0		0	4910.422555	1.964169022
8	0	0		0	4910.422555	1.964169022
9	0	0		0	4910.422555	1.964169022
10	0	0		0	4910.422555	1.964169022
11	0	0		0	4910.422555	1.964169022
12	0	0		0	4910.422555	1.964169022
13	0	0		0	4910.422555	1.964169022
14	0	0		0	4910.422555	1.964169022
15	0	0		0	4910.422555	1.964169022
16	0	0		0	4910.422555	1.964169022
17	0	0		0	4910.422555	1.964169022
18	0	0		0	4910.422555	1.964169022
19	0	0		0	4910.422555	1.964169022
20	0	0		0	4910.422555	1.964169022
21	10	117.319965		0	5027.74252	2.011097008
22	15	175.9799475		0	5203.722467	2.081488987
23	0	0		0	5203.722467	2.081488987
24	0	0		0	5203.722467	2.081488987
25	0	0		0	5203.722467	2.081488987
26	0	0		0	5203.722467	2.081488987
27	0	0		0	5203.722467	2.081488987
28	10	117.319965		0	5321.042432	2.128416973
29	0	0		0	5321.042432	2.128416973
30	0	0		0	5321.042432	2.128416973

Mei						
1	0	0		0	5321.042432	2.128416973
2	0	0		0	5321.042432	2.128416973
3	0	0		0	5321.042432	2.128416973
4	0	0		0	5321.042432	2.128416973
5	0	0		0	5321.042432	2.128416973
6	0	0		0	5321.042432	2.128416973
7	0	0		0	5321.042432	2.128416973
8	0	0		0	5321.042432	2.128416973
9	0	0		0	5321.042432	2.128416973
10	0	0		0	5321.042432	2.128416973
11	25	293.2999125		0	5614.342345	2.245736938
12	0	0		0	5614.342345	2.245736938
13	23	269.8359195		0	5884.178264	2.353671306
14	0	0		0	5884.178264	2.353671306
15	0	0		0	5884.178264	2.353671306
16	15	175.9799475		0	6060.158212	2.424063285
17	0	0		0	6060.158212	2.424063285
18	21	246.3719265		0	6306.530138	2.522612055
19	0	0		0	6306.530138	2.522612055
20	0	0		0	6306.530138	2.522612055
21	0	0		0	6306.530138	2.522612055
22	0	0		0	6306.530138	2.522612055
23	23	269.8359195	1200	0	5376.366058	2.150546423
24	0	0		0	5376.366058	2.150546423
25	0	0		0	5376.366058	2.150546423
26	0	0		0	5376.366058	2.150546423
27	0	0		0	5376.366058	2.150546423
28	0	0		0	5376.366058	2.150546423
29	0	0		18	5358.366058	2.143346423
30	0	0		18	5340.366058	2.136146423
31	0	0		18	5322.366058	2.128946423
Juni						
1	0	0		18	5304.366058	2.121746423
2	0	0		18	5286.366058	2.114546423
3	0	0		18	5268.366058	2.107346423
4	0	0		0	5268.366058	2.107346423
5	0	0		0	5268.366058	2.107346423
6	0	0		0	5268.366058	2.107346423
7	0	0		0	5268.366058	2.107346423
8	0	0		0	5268.366058	2.107346423
9	0	0		0	5268.366058	2.107346423
10	50	586.599825		0	5854.965883	2.341986353
11	0	0		0	5854.965883	2.341986353
12	0	0		0	5854.965883	2.341986353
13	0	0		0	5854.965883	2.341986353
14	0	0		0	5854.965883	2.341986353
15	0	0		18	5836.965883	2.334786353
16	0	0		18	5818.965883	2.327586353
17	0	0		18	5800.965883	2.320386353
18	0	0		18	5782.965883	2.313186353
19	0	0		18	5764.965883	2.305986353
20	0	0		18	5746.965883	2.298786353
21	0	0		18	5728.965883	2.291586353
22	0	0		18	5710.965883	2.284386353
23	0	0		18	5692.965883	2.277186353
24	0	0		18	5674.965883	2.269986353
25	0	0		18	5656.965883	2.262786353
26	0	0		18	5638.965883	2.255586353
27	0	0		18	5620.965883	2.248386353
28	0	0		18	5602.965883	2.241186353
29	0	0		18	5584.965883	2.233986353
30	0	0		18	5566.965883	2.226786353
Juli						
1	0	0		18	5548.965883	2.219586353
2	0	0		18	5530.965883	2.212386353
3	0	0		0	5530.965883	2.212386353
4	0	0		0	5530.965883	2.212386353
5	0	0		0	5530.965883	2.212386353
6	0	0		0	5530.965883	2.212386353
7	0	0		0	5530.965883	2.212386353
8	0	0		0	5530.965883	2.212386353
9	0	0		18	5512.965883	2.205186353
10	0	0		0	5512.965883	2.205186353

11	0	0		0	5512.965883	2.205186353
12	0	0		0	5512.965883	2.205186353
13	0	0		0	5512.965883	2.205186353
14	0	0		0	5512.965883	2.205186353
15	0	0		0	5512.965883	2.205186353
16	0	0		18	5494.965883	2.197986353
17	0	0		18	5476.965883	2.190786353
18	0	0		18	5458.965883	2.183586353
19	0	0		18	5440.965883	2.176386353
20	0	0		18	5422.965883	2.169186353
21	0	0		18	5404.965883	2.161986353
22	0	0		18	5386.965883	2.154786353
23	0	0		18	5368.965883	2.147586353
24	0	0		18	5350.965883	2.140386353
25	0	0		18	5332.965883	2.133186353
26	0	0		18	5314.965883	2.125986353
27	0	0		18	5296.965883	2.118786353
28	0	0		18	5278.965883	2.111586353
29	0	0		18	5260.965883	2.104386353
30	0	0		18	5242.965883	2.097186353
31						
Agustus	0	0		18	5224.965883	2.089986353
1	0	0		18	5206.965883	2.082786353
2	0	0		18	5188.965883	2.075586353
3	0	0		18	5170.965883	2.068386353
4	0	0		18	5152.965883	2.061186353
5	0	0		18	5134.965883	2.053986353
6	0	0		18	5116.965883	2.046786353
7	0	0		18	5098.965883	2.039586353
8	0	0		18	5080.965883	2.032386353
9	0	0		18	5062.965883	2.025186353
10	0	0		18	5044.965883	2.017986353
11	0	0		18	5026.965883	2.010786353
12	0	0		18	5008.965883	2.003586353
13	0	0		18	4990.965883	1.996386353
14	0	0		18	4972.965883	1.989186353
15	0	0		18	4954.965883	1.981986353
16	0	0		18	4936.965883	1.974786353
17	0	0		18	4918.965883	1.967586353
18	0	0		18	4900.965883	1.960386353
19	0	0		18	4882.965883	1.953186353
20	0	0		18	4864.965883	1.945986353
21	0	0		18	4846.965883	1.938786353
22	0	0		18	4828.965883	1.931586353
23	0	0		18	4810.965883	1.924386353
24	0	0		0	4810.965883	1.924386353
25	0	0		0	4810.965883	1.924386353
26	0	0		0	4810.965883	1.924386353
27	0	0		0	4810.965883	1.924386353
28	0	0		18	4792.965883	1.917186353
29	0	0		18	4774.965883	1.909986353
30	0	0		18	4756.965883	1.902786353
31	0	0		18	4738.965883	1.895586353

September						
1	0	0		18	4720.965883	1.888386353
2	0	0		18	4702.965883	1.881186353
3	0	0		18	4684.965883	1.873986353
4	0	0		18	4666.965883	1.866786353
5	0	0		18	4648.965883	1.859586353
6	0	0		0	4648.965883	1.859586353
7	0	0		0	4648.965883	1.859586353
8	0	0		0	4648.965883	1.859586353
9	0	0		0	4648.965883	1.859586353
10	0	0		0	4648.965883	1.859586353
11	0	0		18	4630.965883	1.852386353
12	0	0		0	4630.965883	1.852386353
13	0	0		0	4630.965883	1.852386353
14	0	0		0	4630.965883	1.852386353
15	0	0		0	4630.965883	1.852386353
16	0	0		18	4612.965883	1.845186353
17	0	0		0	4612.965883	1.845186353
18	0	0		18	4594.965883	1.837986353
19	0	0		18	4576.965883	1.830786353
20	0	0		0	4576.965883	1.830786353
21	0	0		0	4576.965883	1.830786353
22	0	0		0	4576.965883	1.830786353
23	0	0		0	4576.965883	1.830786353
24	0	0		0	4576.965883	1.830786353
25	0	0		0	4576.965883	1.830786353
26	0	0		0	4576.965883	1.830786353
27	0	0		0	4576.965883	1.830786353
28	0	0		0	4576.965883	1.830786353
29	0	0		18	4558.965883	1.823586353
30	0	0		18	4540.965883	1.816386353
Oktober						
1	0	0		18	4522.965883	1.809186353
2	0	0		18	4504.965883	1.801986353
3	0	0		18	4486.965883	1.794786353
4	0	0		18	4468.965883	1.787586353
5	0	0		18	4450.965883	1.780386353
6	0	0		18	4432.965883	1.773186353
7	0	0		18	4414.965883	1.765986353
8	0	0		0	4414.965883	1.765986353
9	0	0		0	4414.965883	1.765986353
10	0	0		0	4414.965883	1.765986353
11	0	0		0	4414.965883	1.765986353
12	0	0		0	4414.965883	1.765986353
13	0	0		18	4396.965883	1.758786353
14	0	0		18	4378.965883	1.751586353
15	0	0		0	4378.965883	1.751586353
16	0	0		0	4378.965883	1.751586353
17	0	0		0	4378.965883	1.751586353
18	0	0		0	4378.965883	1.751586353
19	0	0		0	4378.965883	1.751586353
20	0	0		0	4378.965883	1.751586353
21	0	0		18	4360.965883	1.744386353
22	0	0		18	4342.965883	1.737186353
23	0	0		18	4324.965883	1.729986353
24	0	0		18	4306.965883	1.722786353
25	0	0		18	4288.965883	1.715586353
26	0	0		18	4270.965883	1.708386353
27	0	0		18	4252.965883	1.701186353
28	0	0		18	4234.965883	1.693986353
29	0	0		0	4234.965883	1.693986353
30	0	0		0	4234.965883	1.693986353
31	0	0		0	4234.965883	1.693986353
November						
1	0	0		0	4234.965883	1.693986353
2	0	0		0	4234.965883	1.693986353
3	0	0		0	4234.965883	1.693986353
4	0	0		0	4234.965883	1.693986353
5	0	0		0	4234.965883	1.693986353
6	0	0		0	4234.965883	1.693986353
7	0	0		0	4234.965883	1.693986353
8	0	0		0	4234.965883	1.693986353
9	0	0		0	4234.965883	1.693986353
10	0	0		0	4234.965883	1.693986353

11	0	0		0	4234.965883	1.693986353
12	0	0		0	4234.965883	1.693986353
13	0	0		0	4234.965883	1.693986353
14	0	0		0	4234.965883	1.693986353
15	0	0		18	4216.965883	1.686786353
16	0	0		18	4198.965883	1.679586353
17	0	0		18	4180.965883	1.672386353
18	0	0		18	4162.965883	1.665186353
19	0	0		18	4144.965883	1.657986353
20	0	0		0	4144.965883	1.657986353
21	0	0		0	4144.965883	1.657986353
22	0	0		0	4144.965883	1.657986353
23	0	0		0	4144.965883	1.657986353
24	0	0		0	4144.965883	1.657986353
25	0	0		0	4144.965883	1.657986353
26	0	0		0	4144.965883	1.657986353
27	0	0		0	4144.965883	1.657986353
28	0	0		0	4144.965883	1.657986353
29	0	0		18	4126.965883	1.650786353
30	0	0		0	4126.965883	1.650786353
Desenber						
1	0	0		0	4126.965883	1.650786353
2	0	0		0	4126.965883	1.650786353
3	0	0		0	4126.965883	1.650786353
4	0	0		0	4126.965883	1.650786353
5	0	0		0	4126.965883	1.650786353
6	0	0		0	4126.965883	1.650786353
7	0	0		0	4126.965883	1.650786353
8	0	0		0	4126.965883	1.650786353
9	0	0		0	4126.965883	1.650786353
10	0	0		0	4126.965883	1.650786353
11	0	0		0	4126.965883	1.650786353
12	0	0		0	4126.965883	1.650786353
13	0	0		0	4126.965883	1.650786353
14	0	0		0	4126.965883	1.650786353
15	0	0		0	4126.965883	1.650786353
16	0	0		0	4126.965883	1.650786353
17	0	0		0	4126.965883	1.650786353
18	0	0		0	4126.965883	1.650786353
19	0	0		0	4126.965883	1.650786353
20	0	0		0	4126.965883	1.650786353
21	0	0		0	4126.965883	1.650786353
22	0	0		0	4126.965883	1.650786353
23	0	0		0	4126.965883	1.650786353
24	0	0		0	4126.965883	1.650786353
25	0	0		0	4126.965883	1.650786353
26	0	0		0	4126.965883	1.650786353
27	0	0		0	4126.965883	1.650786353
28	0	0		0	4126.965883	1.650786353
29	0	0		0	4126.965883	1.650786353
30	0	0		0	4126.965883	1.650786353
31	0	0		18	4108.965883	1.643586353

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	25	348.22084		0	7387.002629	2.46233421
2	0	0		0	7387.002629	2.46233421
3	0	0		0	7387.002629	2.46233421
4	50	696.44168	1500	0	6583.444304	2.19448143
5	0	0		0	6583.444304	2.19448143
6	12	167.146		0	6750.590306	2.25019677
7	15	208.9325		0	6959.522809	2.31984094
8	10	139.28834		0	7098.811144	2.36627038
9	0	0		0	7098.811144	2.36627038
10	11	153.21717		0	7252.028312	2.41734277
11	28	390.00734		0	7642.03565	2.54734522
12	0	0		0	7642.03565	2.54734522
13	0	0		0	7642.03565	2.54734522
14	20	278.57667		0	7920.61232	2.64020411
15	10	139.28834		0	8059.900655	2.68663355
16	15	208.9325		0	8268.833158	2.75627772
17	0	0		0	8268.833158	2.75627772
18	0	0		18	8250.833158	2.75027772
19	7	97.501835		18	8330.334992	2.77677833
20	6	83.573001		18	8395.907993	2.798636
21	0	0		18	8377.907993	2.792636
22	4	55.715334		18	8415.623327	2.80520778
23	0	0		18	8397.623327	2.79920778
24	0	0		18	8379.623327	2.79320778
25	0	0		18	8361.623327	2.78720778
26	38	529.29567		0	8890.919	2.96363967
27	5	69.644168		0	8960.563168	2.98685439
28	0	0		0	8960.563168	2.98685439
29	0	0		0	8960.563168	2.98685439
30	0	0		0	8960.563168	2.98685439
31	0	0		18	8942.563168	2.98085439
Februari						
1	0	0		18	8924.563168	2.97485439
2	0	0		18	8906.563168	2.96885439
3	28	390.00734	1500	0	7796.570506	2.59885684
4	0	0		0	7796.570506	2.59885684
5	0	0		0	7796.570506	2.59885684
6	0	0		0	7796.570506	2.59885684
7	0	0		18	7778.570506	2.59285684
8	0	0		18	7760.570506	2.58685684
9	35	487.50917		0	8248.079678	2.74935989
10	47	654.65517		0	8902.734853	2.96757828
11	0	0		0	8902.734853	2.96757828
12	0	0		0	8902.734853	2.96757828
13	0	0		0	8902.734853	2.96757828
14	23	320.36317	1500	0	7723.098023	2.57436601
15	0	0		0	7723.098023	2.57436601
16	0	0		0	7723.098023	2.57436601
17	0	0		0	7723.098023	2.57436601
18	0	0		18	7705.098023	2.56836601
19	0	0		18	7687.098023	2.56236601
20	0	0		18	7669.098023	2.55636601
21	38	529.29567	1500	0	6698.393696	2.2327979
22	0	0		0	6698.393696	2.2327979
23	0	0		0	6698.393696	2.2327979
24	10	139.28834		0	6837.682031	2.27922734
25	4	55.715334		0	6893.397365	2.29779912
26	0	0		0	6893.397365	2.29779912
27	0	0		0	6893.397365	2.29779912
28	0	0		0	6893.397365	2.29779912
Maret						
1	0	0		18	6875.397365	2.29179912
2	0	0		18	6857.397365	2.28579912
3	20	278.57667		0	7135.974035	2.37865801
4	26	362.14967		0	7498.123706	2.49937457
5	0	0		0	7498.123706	2.49937457
6	20	278.57667		0	7776.700376	2.59223346
7	65	905.37418	1500	0	7182.074554	2.39402485
8	78	1086.449		0	8268.523567	2.75617452
9	22	306.43434		0	8574.957904	2.8583193

10	16	222.86134		0	8797.81924	2.93260641
11	0	0		0	8797.81924	2.93260641
12	0	0		0	8797.81924	2.93260641
13	0	0		0	8797.81924	2.93260641
14	0	0		18	8779.81924	2.92660641
15	0	0		18	8761.81924	2.92060641
16	5	69.644168		0	8831.463407	2.94382114
17	0	0		0	8831.463407	2.94382114
18	12	167.146	1500	0	7498.609409	2.49953647
19	0	0		0	7498.609409	2.49953647
20	0	0		0	7498.609409	2.49953647
21	37	515.36684		0	8013.976249	2.67132542
22	59	821.80118		0	8835.777425	2.94525914
23	0	0		0	8835.777425	2.94525914
24	0	0		0	8835.777425	2.94525914
25	0	0		0	8835.777425	2.94525914
26	0	0		18	8817.777425	2.93925914
27	0	0		18	8799.777425	2.93325914
28	0	0		18	8781.777425	2.92725914
29	0	0		18	8763.777425	2.92125914
30	12	167.146		0	8930.923427	2.97697448
31	0	0		0	8930.923427	2.97697448
April						
1	0	0		0	8930.923427	2.97697448
2	17	236.79017	1500	0	7667.713597	2.55590453
3	0	0		0	7667.713597	2.55590453
4	0	0		0	7667.713597	2.55590453
5	23	320.36317	1500	0	6488.076767	2.16269226
6	0	0		0	6488.076767	2.16269226
7	0	0		0	6488.076767	2.16269226
8	0	0		0	6488.076767	2.16269226
9	0	0		18	6470.076767	2.15669226
10	0	0		18	6452.076767	2.15069226
11	15	208.9325		0	6661.00927	2.22033642
12	0	0		0	6661.00927	2.22033642
13	20	278.57667		0	6939.58594	2.31319531
14	0	0		0	6939.58594	2.31319531
15	0	0		0	6939.58594	2.31319531
16	0	0		0	6939.58594	2.31319531
17	0	0		18	6921.58594	2.30719531
18	0	0		18	6903.58594	2.30119531
19	0	0		18	6885.58594	2.29519531
20	0	0		18	6867.58594	2.28919531
21	0	0		18	6849.58594	2.28319531
22	0	0		18	6831.58594	2.27719531
23	0	0		18	6813.58594	2.27119531
24	0	0		18	6795.58594	2.26519531
25	0	0		18	6777.58594	2.25919531
26	0	0		18	6759.58594	2.25319531
27	0	0		18	6741.58594	2.24719531
28	0	0		18	6723.58594	2.24119531
29	0	0		18	6705.58594	2.23519531
30	5	69.644168		0	6775.230107	2.25841004

Mei						
1	0	0		0	6775.230107	2.25841004
2	44	612.86867		0	7388.098781	2.46269959
3	0	0		0	7388.098781	2.46269959
4	0	0		0	7388.098781	2.46269959
5	0	0		0	7388.098781	2.46269959
6	0	0		18	7370.098781	2.45669959
7	20	278.57667		0	7648.675451	2.54955848
8	0	0		0	7648.675451	2.54955848
9	0	0		0	7648.675451	2.54955848
10	0	0		0	7648.675451	2.54955848
11	0	0		18	7630.675451	2.54355848
12	0	0		18	7612.675451	2.53755848
13	0	0		18	7594.675451	2.53155848
14	0	0		18	7576.675451	2.52555848
15	0	0		18	7558.675451	2.51955848
16	0	0		18	7540.675451	2.51355848
17	0	0		18	7522.675451	2.50755848
18	0	0		18	7504.675451	2.50155848
19	0	0		18	7486.675451	2.49555848
20	0	0		18	7468.675451	2.48955848
21	0	0		18	7450.675451	2.48355848
22	0	0		18	7432.675451	2.47755848
23	0	0		18	7414.675451	2.47155848
24	0	0		18	7396.675451	2.46555848
25	0	0		18	7378.675451	2.45955848
26	0	0		18	7360.675451	2.45355848
27	0	0		18	7342.675451	2.44755848
28	0	0		18	7324.675451	2.44155848
29	0	0		18	7306.675451	2.43555848
30	0	0		18	7288.675451	2.42955848
31	0	0		18	7270.675451	2.42355848
Juni						
1	0	0		18	7252.675451	2.41755848
2	0	0		18	7234.675451	2.41155848
3	0	0		18	7216.675451	2.40555848
4	0	0		18	7198.675451	2.39955848
5	15	208.9325		0	7407.607954	2.46920265
6	25	348.22084		0	7755.828791	2.58527626
7	30	417.86501		0	8173.693796	2.7245646
8	5	69.644168		0	8243.337964	2.74777932
9	0	0		0	8243.337964	2.74777932
10	0	0		0	8243.337964	2.74777932
11	0	0		0	8243.337964	2.74777932
12	0	0		18	8225.337964	2.74177932
13	0	0		18	8207.337964	2.73577932
14	0	0		18	8189.337964	2.72977932
15	8	111.43067		0	8300.768632	2.76692288
16	0	0		0	8300.768632	2.76692288
17	0	0		0	8300.768632	2.76692288
18	0	0		0	8300.768632	2.76692288
19	0	0		18	8282.768632	2.76092288
20	10	139.28834		0	8422.056967	2.80735232
21	0	0		0	8422.056967	2.80735232
22	15	208.9325	1500	0	7130.989469	2.37699649
23	20	278.57667		0	7409.566139	2.46985538
24	0	0		0	7409.566139	2.46985538
25	0	0		0	7409.566139	2.46985538
26	0	0		0	7409.566139	2.46985538
27	0	0		18	7391.566139	2.46385538
28	0	0		18	7373.566139	2.45785538
29	0	0		18	7355.566139	2.45185538
30	0	0		18	7337.566139	2.44585538
Juli						
1	0	0		18	7319.566139	2.43985538
2	0	0		18	7301.566139	2.43385538
3	0	0		18	7283.566139	2.42785538
4	0	0		18	7265.566139	2.42185538
5	0	0		18	7247.566139	2.41585538
6	15	208.9325		0	7456.498642	2.48549955
7	0	0		0	7456.498642	2.48549955
8	0	0		0	7456.498642	2.48549955
9	0	0		0	7456.498642	2.48549955
10	0	0		18	7438.498642	2.47949955



11	20	278.57667		0	7717.075312	2.57235844
12	45	626.79751		0	8343.872819	2.78129094
13	0	0		0	8343.872819	2.78129094
14	0	0		0	8343.872819	2.78129094
15	0	0		0	8343.872819	2.78129094
16	0	0		18	8325.872819	2.77529094
17	0	0		18	8307.872819	2.76929094
18	10	139.28834		0	8447.161154	2.81572038
19	0	0		0	8447.161154	2.81572038
20	0	0		0	8447.161154	2.81572038
21	0	0		0	8447.161154	2.81572038
22	0	0		18	8429.161154	2.80972038
23	0	0		18	8411.161154	2.80372038
24	0	0		18	8393.161154	2.79772038
25	0	0		18	8375.161154	2.79172038
26	0	0		18	8357.161154	2.78572038
27	0	0		18	8339.161154	2.77972038
28	0	0		18	8321.161154	2.77372038
29	0	0		18	8303.161154	2.76772038
30	0	0		18	8285.161154	2.76172038
31	0	0		18	8267.161154	2.75572038
Agustus						
1	0	0		18	8249.161154	2.74972038
2	0	0		18	8231.161154	2.74372038
3	20	278.57667		0	8509.737824	2.83657927
4	0	0		0	8509.737824	2.83657927
5	0	0		0	8509.737824	2.83657927
6	0	0		0	8509.737824	2.83657927
7	0	0		18	8491.737824	2.83057927
8	0	0		18	8473.737824	2.82457927
9	0	0		18	8455.737824	2.81857927
10	0	0		18	8437.737824	2.81257927
11	0	0		18	8419.737824	2.80657927
12	0	0		18	8401.737824	2.80057927
13	0	0		18	8383.737824	2.79457927
14	0	0		18	8365.737824	2.78857927
15	0	0		18	8347.737824	2.78257927
16	0	0		18	8329.737824	2.77657927
17	0	0		18	8311.737824	2.77057927
18	0	0		18	8293.737824	2.76457927
19	0	0		18	8275.737824	2.75857927
20	0	0		18	8257.737824	2.75257927
21	0	0		18	8239.737824	2.74657927
22	0	0		18	8221.737824	2.74057927
23	0	0		18	8203.737824	2.73457927
24	0	0		18	8185.737824	2.72857927
25	0	0		18	8167.737824	2.72257927
26	0	0		18	8149.737824	2.71657927
27	0	0		18	8131.737824	2.71057927
28	0	0		18	8113.737824	2.70457927
29	0	0		18	8095.737824	2.69857927
30	0	0		18	8077.737824	2.69257927
31	0	0		18	8059.737824	2.68657927

September						
1	0	0		18	8041.737824	2.68057927
2	0	0		18	8023.737824	2.67457927
3	0	0		18	8005.737824	2.66857927
4	0	0		18	7987.737824	2.66257927
5	0	0		18	7969.737824	2.65657927
6	0	0		18	7951.737824	2.65057927
7	0	0		18	7933.737824	2.64457927
8	0	0		18	7915.737824	2.63857927
9	0	0		18	7897.737824	2.63257927
10	0	0		18	7879.737824	2.62657927
11	0	0		18	7861.737824	2.62057927
12	0	0		18	7843.737824	2.61457927
13	0	0		18	7825.737824	2.60857927
14	0	0		18	7807.737824	2.60257927
15	0	0		18	7789.737824	2.59657927
16	0	0		18	7771.737824	2.59057927
17	0	0		18	7753.737824	2.58457927
18	0	0		18	7735.737824	2.57857927
19	0	0		18	7717.737824	2.57257927
20	0	0		18	7699.737824	2.56657927
21	0	0		18	7681.737824	2.56057927
22	0	0		18	7663.737824	2.55457927
23	0	0		18	7645.737824	2.54857927
24	0	0		18	7627.737824	2.54257927
25	0	0		18	7609.737824	2.53657927
26	0	0		18	7591.737824	2.53057927
27	0	0		18	7573.737824	2.52457927
28	0	0		18	7555.737824	2.51857927
29	0	0		18	7537.737824	2.51257927
30	0	0		18	7519.737824	2.50657927
Oktober						
1	0	0		18	7501.737824	2.50057927
2	0	0		18	7483.737824	2.49457927
3	0	0		18	7465.737824	2.48857927
4	0	0		18	7447.737824	2.48257927
5	0	0		18	7429.737824	2.47657927
6	0	0		18	7411.737824	2.47057927
7	0	0		18	7393.737824	2.46457927
8	0	0		18	7375.737824	2.45857927
9	0	0		18	7357.737824	2.45257927
10	0	0		18	7339.737824	2.44657927
11	0	0		18	7321.737824	2.44057927
12	0	0		18	7303.737824	2.43457927
13	0	0		18	7285.737824	2.42857927
14	0	0		18	7267.737824	2.42257927
15	0	0		18	7249.737824	2.41657927
16	0	0		18	7231.737824	2.41057927
17	0	0		18	7213.737824	2.40457927
18	18	250.719		0	7464.456827	2.48815228
19	20	278.57667		0	7743.033497	2.58101117
20	0	0		0	7743.033497	2.58101117
21	0	0		0	7743.033497	2.58101117
22	0	0		0	7743.033497	2.58101117
23	10	139.28834		0	7882.321832	2.62744061
24	0	0		0	7882.321832	2.62744061
25	0	0		0	7882.321832	2.62744061
26	0	0		0	7882.321832	2.62744061
27	0	0		18	7864.321832	2.62144061
28	0	0		18	7846.321832	2.61544061
29	0	0		18	7828.321832	2.60944061
30	0	0		18	7810.321832	2.60344061
31	0	0		18	7792.321832	2.59744061
November						
1	0	0		18	7774.321832	2.59144061
2	0	0		18	7756.321832	2.58544061
3	0	0		18	7738.321832	2.57944061
4	0	0		18	7720.321832	2.57344061
5	0	0		18	7702.321832	2.56744061
6	0	0		18	7684.321832	2.56144061
7	0	0		18	7666.321832	2.55544061
8	0	0		18	7648.321832	2.54944061
9	0	0		18	7630.321832	2.54344061
10	0	0		18	7612.321832	2.53744061

11	0	0		18	7594.321832	2.53144061
12	0	0		18	7576.321832	2.52544061
13	0	0		18	7558.321832	2.51944061
14	0	0		18	7540.321832	2.51344061
15	0	0		18	7522.321832	2.50744061
16	0	0		18	7504.321832	2.50144061
17	0	0		18	7486.321832	2.49544061
18	0	0		18	7468.321832	2.48944061
19	0	0		18	7450.321832	2.48344061
20	26	362.14967		0	7812.471503	2.60415717
21	7	97.501835		0	7909.973338	2.63665778
22	0	0		0	7909.973338	2.63665778
23	0	0		0	7909.973338	2.63665778
24	0	0		0	7909.973338	2.63665778
25	0	0		18	7891.973338	2.63065778
26	0	0		18	7873.973338	2.62465778
27	0	0		18	7855.973338	2.61865778
28	0	0		18	7837.973338	2.61265778
29	0	0		18	7819.973338	2.60665778
30	0	0		18	7801.973338	2.60065778
Desember						
1	25	348.22084		0	8150.194175	2.71673139
2	20	278.57667		0	8428.770845	2.80959028
3	0	0		0	8428.770845	2.80959028
4	8	111.43067		0	8540.201513	2.84673384
5	0	0		0	8540.201513	2.84673384
6	0	0		0	8540.201513	2.84673384
7	26	362.14967		0	8902.351184	2.96745039
8	10	139.28834	1500	0	7541.639519	2.51387984
9	0	0		0	7541.639519	2.51387984
10	0	0		0	7541.639519	2.51387984
11	0	0		0	7541.639519	2.51387984
12	25	348.22084		0	7889.860357	2.62995345
13	20	278.57667	1500	0	6668.437027	2.22281234
14	0	0		0	6668.437027	2.22281234
15	110	1532.1717	1500	0	6700.608712	2.23353624
16	0	0		0	6700.608712	2.23353624
17	10	139.28834		0	6839.897047	2.27996568
18	0	0		0	6839.897047	2.27996568
19	10	139.28834	1500	0	5479.185382	1.82639513
20	5	69.644168		0	5548.829549	1.84960985
21	20	278.57667		0	5827.406219	1.94246874
22	0	0		0	5827.406219	1.94246874
23	15	208.9325	1500	0	4536.338722	1.51211291
24	0	0		0	4536.338722	1.51211291
25	0	0		0	4536.338722	1.51211291
26	0	0		0	4536.338722	1.51211291
27	10	139.28834		0	4675.627057	1.55854235
28	0	0		0	4675.627057	1.55854235
29	0	0		0	4675.627057	1.55854235
30	0	0		0	4675.627057	1.55854235
31	0	0		18	4657.627057	1.55254235

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	5	58.659983		0	4167.625865	1.667050346
2	10	117.31997		0	4284.94583	1.713978332
3	0	0		0	4284.94583	1.713978332
4	0	0		0	4284.94583	1.713978332
5	0	0		0	4284.94583	1.713978332
6	20	234.63993		0	4519.58576	1.807834304
7	0	0		0	4519.58576	1.807834304
8	10	117.31997		0	4636.905725	1.85476229
9	0	0		0	4636.905725	1.85476229
10	25	293.29991		0	4930.205638	1.972082255
11	0	0		0	4930.205638	1.972082255
12	0	0		0	4930.205638	1.972082255
13	0	0		0	4930.205638	1.972082255
14	10	117.31997		0	5047.525603	2.019010241
15	0	0		0	5047.525603	2.019010241
16	0	0		0	5047.525603	2.019010241
17	0	0		0	5047.525603	2.019010241
18	0	0		18	5029.525603	2.011810241
19	0	0		18	5011.525603	2.004610241
20	5	58.659983		0	5070.185585	2.028074234
21	0	0		0	5070.185585	2.028074234
22	0	0		0	5070.185585	2.028074234
23	0	0		0	5070.185585	2.028074234
24	4	46.927986		0	5117.113571	2.046845428
25	15	175.97995		0	5293.093519	2.117237407
26	21	246.37193		0	5539.465445	2.215786178
27	0	0		0	5539.465445	2.215786178
28	0	0		0	5539.465445	2.215786178
29	6	70.391979		0	5609.857424	2.24394297
30	18	211.17594		0	5821.03361	2.328413344
31	26	305.03191		0	6126.06527	2.450426108
Februari						
1	20	234.63993	1200	0	5160.7052	2.06428208
2	25	293.29991		0	5454.005113	2.181602045
3	19	222.90793		0	5676.913046	2.270765218
4	0	0		0	5676.913046	2.270765218
5	0	0		0	5676.913046	2.270765218
6	0	0		0	5676.913046	2.270765218
7	0	0		0	5676.913046	2.270765218
8	20	234.63993		0	5911.552976	2.36462119
9	0	0		0	5911.552976	2.36462119
10	0	0		0	5911.552976	2.36462119
11	0	0		0	5911.552976	2.36462119
12	30	351.9599	1200	0	5063.512871	2.025405148
13	7	82.123976		0	5145.636847	2.058254739
14	47	551.40384		0	5697.040682	2.278816273
15	0	0		0	5697.040682	2.278816273
16	13	152.51595		0	5849.556637	2.339822655
17	0	0		0	5849.556637	2.339822655
18	9	105.58797		0	5955.144605	2.382057842
19	0	0		0	5955.144605	2.382057842
20	0	0		0	5955.144605	2.382057842
21	5	58.659983		0	6013.804588	2.405521835
22	0	0		0	6013.804588	2.405521835
23	10	117.31997		0	6131.124553	2.452449821
24	8	93.855972		0	6224.980525	2.48999221
25	0	0		0	6224.980525	2.48999221
26	15	175.97995	1200	0	5200.960472	2.080384189
27	0	0		0	5200.960472	2.080384189
28	0	0		0	5200.960472	2.080384189
Maret						
1	20	234.63993		0	5435.600402	2.174240161
2	10	117.31997		0	5552.920367	2.221168147
3	0	0		0	5552.920367	2.221168147
4	3	35.19599		0	5588.116357	2.235246543
5	0	0		0	5588.116357	2.235246543
6	0	0		0	5588.116357	2.235246543
7	8	93.855972		0	5681.972329	2.272788931
8	14	164.24795		0	5846.22028	2.338488112
9	0	0		0	5846.22028	2.338488112

10	0	0		0	5846.22028	2.338488112
11	0	0		0	5846.22028	2.338488112
12	20	234.63993		0	6080.86021	2.432344084
13	5	58.659983		0	6139.520192	2.455808077
14	7	82.123976		0	6221.644168	2.488657667
15	5	58.659983		0	6280.30415	2.51212166
16	0	0		0	6280.30415	2.51212166
17	20	234.63993	1200	0	5314.94408	2.125977632
18	0	0		0	5314.94408	2.125977632
19	0	0		0	5314.94408	2.125977632
20	8	93.855972	1200	0	4208.800052	1.683520021
21	0	0		0	4208.800052	1.683520021
22	0	0		0	4208.800052	1.683520021
23	30	351.9599		0	4560.759947	1.824303979
24	0	0		0	4560.759947	1.824303979
25	20	234.63993		0	4795.399877	1.918159951
26	25	293.29991		0	5088.69979	2.035479916
27	24	281.56792		0	5370.267706	2.148107082
28	0	0		0	5370.267706	2.148107082
29	27	316.76391		0	5687.031611	2.274812644
30	0	0		0	5687.031611	2.274812644
31	0	0		0	5687.031611	2.274812644
April						
1	20	234.63993	1200	0	4721.671541	1.888668617
2	40	469.27986		0	5190.951401	2.076380561
3	39	457.54786		0	5648.499265	2.259399706
4	15	175.97995		0	5824.479212	2.329791685
5	7	82.123976		0	5906.603188	2.362641275
6	17	199.44394	1200	0	4906.047128	1.962418851
7	9	105.58797		0	5011.635097	2.004654039
8	0	0		0	5011.635097	2.004654039
9	8	93.855972		0	5105.491069	2.042196428
10	10	117.31997		0	5222.811034	2.089124414
11	30	351.9599		0	5574.770929	2.229908371
12	14	164.24795		0	5739.01888	2.295607552
13	0	0		0	5739.01888	2.295607552
14	30	351.9599		0	6090.978775	2.43639151
15	0	0		0	6090.978775	2.43639151
16	9	105.58797		0	6196.566743	2.478626697
17	8	93.855972		0	6290.422715	2.516169086
18	0	0		0	6290.422715	2.516169086
19	54	633.52781	1200	0	5723.950526	2.289580211
20	0	0		0	5723.950526	2.289580211
21	16	187.71194		0	5911.66247	2.364664988
22	0	0		0	5911.66247	2.364664988
23	9	105.58797		0	6017.250439	2.406900176
24	0	0		0	6017.250439	2.406900176
25	0	0		0	6017.250439	2.406900176
26	28	328.4959		0	6345.746341	2.538298536
27	10	117.31997		0	6463.066306	2.585226522
28	0	0		0	6463.066306	2.585226522
29	20	234.63993		0	6697.706236	2.679082494
30	32	375.42389	1200	0	5873.130124	2.34925205

Mei						
1	21	246.37193		0	6119.50205	2.44780082
2	7	82.123976		0	6201.626026	2.48065041
3	31	363.69189	1200	0	5365.317917	2.146127167
4	0	0		0	5365.317917	2.146127167
5	26	305.03191		0	5670.349826	2.26813993
6	8	93.855972		0	5764.205798	2.305682319
7	0	0		0	5764.205798	2.305682319
8	0	0		0	5764.205798	2.305682319
9	7	82.123976		0	5846.329774	2.33853191
10	0	0		0	5846.329774	2.33853191
11	6	70.391979		0	5916.721753	2.366688701
12	0	0		0	5916.721753	2.366688701
13	10	117.31997	1200	0	4834.041718	1.933616687
14	7	82.123976		0	4916.165693	1.966466277
15	0	0		0	4916.165693	1.966466277
16	0	0		0	4916.165693	1.966466277
17	0	0		0	4916.165693	1.966466277
18	0	0		18	4898.165693	1.959266277
19	0	0		18	4880.165693	1.952066277
20	8	93.855972		0	4974.021665	1.989608666
21	0	0		0	4974.021665	1.989608666
22	0	0		0	4974.021665	1.989608666
23	0	0		0	4974.021665	1.989608666
24	0	0		18	4956.021665	1.982408666
25	0	0		18	4938.021665	1.975208666
26	0	0		18	4920.021665	1.968008666
27	0	0		18	4902.021665	1.960808666
28	0	0		18	4884.021665	1.953608666
29	20	234.63993		0	5118.661595	2.047464638
30	15	175.97995		0	5294.641543	2.117856617
31	0	0		0	5294.641543	2.117856617
Juni						
1	0	0		0	5294.641543	2.117856617
2	0	0		0	5294.641543	2.117856617
3	0	0		18	5276.641543	2.110656617
4	0	0		18	5258.641543	2.103456617
5	0	0		18	5240.641543	2.096256617
6	0	0		18	5222.641543	2.089056617
7	0	0		18	5204.641543	2.081856617
8	0	0		18	5186.641543	2.074656617
9	0	0		18	5168.641543	2.067456617
10	0	0		18	5150.641543	2.060256617
11	0	0		18	5132.641543	2.053056617
12	0	0		18	5114.641543	2.045856617
13	0	0		18	5096.641543	2.038656617
14	0	0		18	5078.641543	2.031456617
15	0	0		18	5060.641543	2.024256617
16	0	0		18	5042.641543	2.017056617
17	0	0		18	5024.641543	2.009856617
18	0	0		18	5006.641543	2.002656617
19	0	0		18	4988.641543	1.995456617
20	0	0		18	4970.641543	1.988256617
21	0	0		18	4952.641543	1.981056617
22	0	0		18	4934.641543	1.973856617
23	0	0		18	4916.641543	1.966656617
24	0	0		18	4898.641543	1.959456617
25	0	0		18	4880.641543	1.952256617
26	0	0		18	4862.641543	1.945056617
27	0	0		18	4844.641543	1.937856617
28	0	0		18	4826.641543	1.930656617
29	0	0		18	4808.641543	1.923456617
30	0	0		18	4790.641543	1.916256617
Juli						
1	0	0		18	4772.641543	1.909056617
2	0	0		18	4754.641543	1.901856617
3	0	0		18	4736.641543	1.894656617
4	0	0		18	4718.641543	1.887456617
5	0	0		18	4700.641543	1.880256617
6	0	0		18	4682.641543	1.873056617
7	0	0		18	4664.641543	1.865856617
8	0	0		18	4646.641543	1.858656617
9	0	0		18	4628.641543	1.851456617
10	0	0		18	4610.641543	1.844256617

11	0	0		18	4592.641543	1.837056617
12	0	0		18	4574.641543	1.829856617
13	0	0		18	4556.641543	1.822656617
14	0	0		18	4538.641543	1.815456617
15	0	0		18	4520.641543	1.808256617
16	0	0		18	4502.641543	1.801056617
17	0	0		18	4484.641543	1.793856617
18	0	0		18	4466.641543	1.786656617
19	0	0		18	4448.641543	1.779456617
20	0	0		18	4430.641543	1.772256617
21	0	0		18	4412.641543	1.765056617
22	0	0		18	4394.641543	1.757856617
23	0	0		18	4376.641543	1.750656617
24	0	0		18	4358.641543	1.743456617
25	0	0		18	4340.641543	1.736256617
26	0	0		18	4322.641543	1.729056617
27	0	0		18	4304.641543	1.721856617
28	0	0		18	4286.641543	1.714656617
29	0	0		18	4268.641543	1.707456617
30	0	0		18	4250.641543	1.700256617
31	0	0		18	4232.641543	1.693056617
Agustus						
1	0	0		18	4214.641543	1.685856617
2	0	0		18	4196.641543	1.678656617
3	0	0		18	4178.641543	1.671456617
4	0	0		18	4160.641543	1.664256617
5	0	0		18	4142.641543	1.657056617
6	0	0		18	4124.641543	1.649856617
7	0	0		18	4106.641543	1.642656617
8	0	0		18	4088.641543	1.635456617
9	0	0		18	4070.641543	1.628256617
10	0	0		18	4052.641543	1.621056617
11	0	0		18	4034.641543	1.613856617
12	0	0		18	4016.641543	1.606656617
13	0	0		18	3998.641543	1.599456617
14	0	0		18	3980.641543	1.592256617
15	0	0		18	3962.641543	1.585056617
16	0	0		18	3944.641543	1.577856617
17	0	0		18	3926.641543	1.570656617
18	0	0		18	3908.641543	1.563456617
19	0	0		18	3890.641543	1.556256617
20	0	0		18	3872.641543	1.549056617
21	0	0		18	3854.641543	1.541856617
22	0	0		18	3836.641543	1.534656617
23	0	0		18	3818.641543	1.527456617
24	0	0		18	3800.641543	1.520256617
25	0	0		18	3782.641543	1.513056617
26	0	0		18	3764.641543	1.505856617
27	0	0		18	3746.641543	1.498656617
28	0	0		18	3728.641543	1.491456617
29	0	0		18	3710.641543	1.484256617
30	0	0		18	3692.641543	1.477056617
31	0	0		18	3674.641543	1.469856617

September						
1	0	0		18	3656.641543	1.462656617
2	0	0		18	3638.641543	1.455456617
3	0	0		18	3620.641543	1.448256617
4	0	0		18	3602.641543	1.441056617
5	0	0		18	3584.641543	1.433856617
6	0	0		18	3566.641543	1.426656617
7	0	0		18	3548.641543	1.419456617
8	0	0		18	3530.641543	1.412256617
9	0	0		18	3512.641543	1.405056617
10	0	0		18	3494.641543	1.397856617
11	0	0		18	3476.641543	1.390656617
12	0	0		18	3458.641543	1.383456617
13	0	0		18	3440.641543	1.376256617
14	0	0		18	3422.641543	1.369056617
15	0	0		18	3404.641543	1.361856617
16	0	0		18	3386.641543	1.354656617
17	0	0		18	3368.641543	1.347456617
18	0	0		18	3350.641543	1.340256617
19	0	0		18	3332.641543	1.333056617
20	0	0		18	3314.641543	1.325856617
21	0	0		18	3296.641543	1.318656617
22	0	0		18	3278.641543	1.311456617
23	0	0		18	3260.641543	1.304256617
24	0	0		18	3242.641543	1.297056617
25	0	0		18	3224.641543	1.289856617
26	0	0		18	3206.641543	1.282656617
27	0	0		18	3188.641543	1.275456617
28	0	0		18	3170.641543	1.268256617
29	0	0		18	3152.641543	1.261056617
30	0	0		18	3134.641543	1.253856617
Oktober						
1	0	0		18	3116.641543	1.246656617
2	0	0		18	3098.641543	1.239456617
3	0	0		18	3080.641543	1.232256617
4	0	0		18	3062.641543	1.225056617
5	0	0		18	3044.641543	1.217856617
6	0	0		18	3026.641543	1.210656617
7	0	0		18	3008.641543	1.203456617
8	0	0		18	2990.641543	1.196256617
9	0	0		18	2972.641543	1.189056617
10	23	269.83592		0	3242.477462	1.296990985
11	0	0		0	3242.477462	1.296990985
12	0	0		0	3242.477462	1.296990985
13	0	0		0	3242.477462	1.296990985
14	0	0		18	3224.477462	1.289790985
15	0	0		18	3206.477462	1.282590985
16	0	0		18	3188.477462	1.275390985
17	0	0		18	3170.477462	1.268190985
18	0	0		18	3152.477462	1.260990985
19	0	0		18	3134.477462	1.253790985
20	0	0		18	3116.477462	1.246590985
21	0	0		18	3098.477462	1.239390985
22	0	0		18	3080.477462	1.232190985
23	0	0		18	3062.477462	1.224990985
24	0	0		18	3044.477462	1.217790985
25	0	0		18	3026.477462	1.210590985
26	0	0		18	3008.477462	1.203390985
27	0	0		18	2990.477462	1.196190985
28	0	0		18	2972.477462	1.188990985
29	0	0		18	2954.477462	1.181790985
30	0	0		18	2936.477462	1.174590985
31	0	0		18	2918.477462	1.167390985
November						
1	0	0		18	2900.477462	1.160190985
2	0	0		18	2882.477462	1.152990985
3	19	222.90793		0	3105.385396	1.242154158
4	0	0		0	3105.385396	1.242154158
5	3	35.19599		0	3140.581385	1.256232554
6	0	0		0	3140.581385	1.256232554
7	30	351.9599		0	3492.54128	1.397016512
8	0	0		0	3492.54128	1.397016512
9	78	915.09573		0	4407.637007	1.763054803
10	0	0		0	4407.637007	1.763054803



11	0	0		0	4407.637007	1.763054803
12	0	0		0	4407.637007	1.763054803
13	3	35.19599		0	4442.832997	1.777133199
14	0	0		0	4442.832997	1.777133199
15	0	0		0	4442.832997	1.777133199
16	0	0		0	4442.832997	1.777133199
17	0	0		18	4424.832997	1.769933199
18	27	316.76391		0	4741.596902	1.896638761
19	0	0		0	4741.596902	1.896638761
20	0	0		0	4741.596902	1.896638761
21	0	0		0	4741.596902	1.896638761
22	0	0		18	4723.596902	1.889438761
23	33	387.15588		0	5110.752787	2.044301115
24	0	0		0	5110.752787	2.044301115
25	0	0		0	5110.752787	2.044301115
26	0	0		0	5110.752787	2.044301115
27	0	0		18	5092.752787	2.037101115
28	21	246.37193		0	5339.124713	2.135649885
29	2	23.463993		0	5362.588706	2.145035482
30	60	703.91979		0	6066.508496	2.426603398
Desenber						
1	0	0		0	6066.508496	2.426603398
2	30	351.9599		0	6418.468391	2.567387356
3	50	586.59983		0	7005.068216	2.802027286
4	0	0		0	7005.068216	2.802027286
5	47	551.40384	1200	0	6356.472052	2.542588821
6	0	0		0	6356.472052	2.542588821
7	10	117.31997	1200	0	5273.792017	2.109516807
8	5	58.659983		0	5332.451999	2.1329808
9	0	0		0	5332.451999	2.1329808
10	0	0		0	5332.451999	2.1329808
11	0	0		0	5332.451999	2.1329808
12	25	293.29991		0	5625.751912	2.250300765
13	0	0		0	5625.751912	2.250300765
14	0	0		0	5625.751912	2.250300765
15	0	0		0	5625.751912	2.250300765
16	54	633.52781	1200	0	5059.279723	2.023711889
17	0	0		0	5059.279723	2.023711889
18	43	504.47585		0	5563.755572	2.225502229
19	1	11.731997		0	5575.487569	2.230195027
20	0	0		0	5575.487569	2.230195027
21	9	105.58797		0	5681.075537	2.272430215
22	0	0		0	5681.075537	2.272430215
23	0	0		0	5681.075537	2.272430215
24	7	82.123976	1200	0	4563.199513	1.825279805
25	20	234.63993		0	4797.839443	1.919135777
26	21	246.37193		0	5044.211369	2.017684548
27	25	293.29991		0	5337.511282	2.135004513
28	0	0		0	5337.511282	2.135004513
29	0	0		0	5337.511282	2.135004513
30	0	0		0	5337.511282	2.135004513
31	57	668.7238	1200	18	4788.235082	1.915294033

FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I(m3)	Vol O 1	Vol O(m3)	DS(m3)	tinggi air (m)
1	25	348.22084		0	7387.002629	2.46233421
2	0	0		0	7387.002629	2.46233421
3	0	0		0	7387.002629	2.46233421
4	50	696.44168	1500	0	6583.444304	2.19448143
5	0	0		0	6583.444304	2.19448143
6	12	167.146		0	6750.590306	2.25019677
7	15	208.9325		0	6959.522809	2.31984094
8	10	139.28834		0	7098.811144	2.36627038
9	0	0		0	7098.811144	2.36627038
10	11	153.21717		0	7252.028312	2.41734277
11	28	390.00734		0	7642.03565	2.54734522
12	0	0		0	7642.03565	2.54734522
13	0	0		0	7642.03565	2.54734522
14	20	278.57667		0	7920.61232	2.64020411
15	10	139.28834		0	8059.900655	2.68663355
16	15	208.9325		0	8268.833158	2.75627772
17	0	0		0	8268.833158	2.75627772
18	0	0		18	8250.833158	2.75027772
19	7	97.501835		18	8330.334992	2.77677833
20	6	83.573001		18	8395.907993	2.798636
21	0	0		18	8377.907993	2.792636
22	4	55.715334		18	8415.623327	2.80520778
23	0	0		18	8397.623327	2.79920778
24	0	0		18	8379.623327	2.79320778
25	0	0		18	8361.623327	2.78720778
26	38	529.29567		0	8890.919	2.96363967
27	5	69.644168		0	8960.563168	2.98685439
28	0	0		0	8960.563168	2.98685439
29	0	0		0	8960.563168	2.98685439
30	0	0		0	8960.563168	2.98685439
31	0	0		18	8942.563168	2.98085439
Februari						
1	0	0		18	8924.563168	2.97485439
2	0	0		18	8906.563168	2.96885439
3	28	390.00734	1500	0	7796.570506	2.59885684
4	0	0		0	7796.570506	2.59885684
5	0	0		0	7796.570506	2.59885684
6	0	0		0	7796.570506	2.59885684
7	0	0		18	7778.570506	2.59285684
8	0	0		18	7760.570506	2.58685684
9	35	487.50917		0	8248.079678	2.74935989
10	47	654.65517		0	8902.734853	2.96757828
11	0	0		0	8902.734853	2.96757828
12	0	0		0	8902.734853	2.96757828
13	0	0		0	8902.734853	2.96757828
14	23	320.36317	1500	0	7723.098023	2.57436601
15	0	0		0	7723.098023	2.57436601
16	0	0		0	7723.098023	2.57436601
17	0	0		0	7723.098023	2.57436601
18	0	0		18	7705.098023	2.56836601
19	0	0		18	7687.098023	2.56236601
20	0	0		18	7669.098023	2.55636601
21	38	529.29567	1500	0	6698.393696	2.2327979
22	0	0		0	6698.393696	2.2327979
23	0	0		0	6698.393696	2.2327979
24	10	139.28834		0	6837.682031	2.27922734
25	4	55.715334		0	6893.397365	2.29779912
26	0	0		0	6893.397365	2.29779912
27	0	0		0	6893.397365	2.29779912
28	0	0		0	6893.397365	2.29779912
Maret						
1	0	0		18	6875.397365	2.29179912
2	0	0		18	6857.397365	2.28579912
3	20	278.57667		0	7135.974035	2.37865801
4	26	362.14967		0	7498.123706	2.49937457
5	0	0		0	7498.123706	2.49937457
6	20	278.57667		0	7776.700376	2.59223346
7	65	905.37418	1500	0	7182.074554	2.39402485
8	78	1086.449		0	8268.523567	2.75617452
9	22	306.43434		0	8574.957904	2.8583193

10	16	222.86134		0	8797.81924	2.93260641
11	0	0		0	8797.81924	2.93260641
12	0	0		0	8797.81924	2.93260641
13	0	0		0	8797.81924	2.93260641
14	0	0		18	8779.81924	2.92660641
15	0	0		18	8761.81924	2.92060641
16	5	69.644168		0	8831.463407	2.94382114
17	0	0		0	8831.463407	2.94382114
18	12	167.146	1500	0	7498.609409	2.49953647
19	0	0		0	7498.609409	2.49953647
20	0	0		0	7498.609409	2.49953647
21	37	515.36684		0	8013.976249	2.67132542
22	59	821.80118		0	8835.777425	2.94525914
23	0	0		0	8835.777425	2.94525914
24	0	0		0	8835.777425	2.94525914
25	0	0		0	8835.777425	2.94525914
26	0	0		18	8817.777425	2.93925914
27	0	0		18	8799.777425	2.93325914
28	0	0		18	8781.777425	2.92725914
29	0	0		18	8763.777425	2.92125914
30	12	167.146		0	8930.923427	2.97697448
31	0	0		0	8930.923427	2.97697448
April						
1	0	0		0	8930.923427	2.97697448
2	17	236.79017	1500	0	7667.713597	2.55590453
3	0	0		0	7667.713597	2.55590453
4	0	0		0	7667.713597	2.55590453
5	23	320.36317	1500	0	6488.076767	2.16269226
6	0	0		0	6488.076767	2.16269226
7	0	0		0	6488.076767	2.16269226
8	0	0		0	6488.076767	2.16269226
9	0	0		18	6470.076767	2.15669226
10	0	0		18	6452.076767	2.15069226
11	15	208.9325		0	6661.00927	2.22033642
12	0	0		0	6661.00927	2.22033642
13	20	278.57667		0	6939.58594	2.31319531
14	0	0		0	6939.58594	2.31319531
15	0	0		0	6939.58594	2.31319531
16	0	0		0	6939.58594	2.31319531
17	0	0		18	6921.58594	2.30719531
18	0	0		18	6903.58594	2.30119531
19	0	0		18	6885.58594	2.29519531
20	0	0		18	6867.58594	2.28919531
21	0	0		18	6849.58594	2.28319531
22	0	0		18	6831.58594	2.27719531
23	0	0		18	6813.58594	2.27119531
24	0	0		18	6795.58594	2.26519531
25	0	0		18	6777.58594	2.25919531
26	0	0		18	6759.58594	2.25319531
27	0	0		18	6741.58594	2.24719531
28	0	0		18	6723.58594	2.24119531
29	0	0		18	6705.58594	2.23519531
30	5	69.644168		0	6775.230107	2.25841004

Mei						
1	0	0		0	6775.230107	2.25841004
2	44	612.86867		0	7388.098781	2.46269959
3	0	0		0	7388.098781	2.46269959
4	0	0		0	7388.098781	2.46269959
5	0	0		0	7388.098781	2.46269959
6	0	0		18	7370.098781	2.45669959
7	20	278.57667		0	7648.675451	2.54955848
8	0	0		0	7648.675451	2.54955848
9	0	0		0	7648.675451	2.54955848
10	0	0		0	7648.675451	2.54955848
11	0	0		18	7630.675451	2.54355848
12	0	0		18	7612.675451	2.53755848
13	0	0		18	7594.675451	2.53155848
14	0	0		18	7576.675451	2.52555848
15	0	0		18	7558.675451	2.51955848
16	0	0		18	7540.675451	2.51355848
17	0	0		18	7522.675451	2.50755848
18	0	0		18	7504.675451	2.50155848
19	0	0		18	7486.675451	2.49555848
20	0	0		18	7468.675451	2.48955848
21	0	0		18	7450.675451	2.48355848
22	0	0		18	7432.675451	2.47755848
23	0	0		18	7414.675451	2.47155848
24	0	0		18	7396.675451	2.46555848
25	0	0		18	7378.675451	2.45955848
26	0	0		18	7360.675451	2.45355848
27	0	0		18	7342.675451	2.44755848
28	0	0		18	7324.675451	2.44155848
29	0	0		18	7306.675451	2.43555848
30	0	0		18	7288.675451	2.42955848
31	0	0		18	7270.675451	2.42355848
Juni						
1	0	0		18	7252.675451	2.41755848
2	0	0		18	7234.675451	2.41155848
3	0	0		18	7216.675451	2.40555848
4	0	0		18	7198.675451	2.39955848
5	15	208.9325		0	7407.607954	2.46920265
6	25	348.22084		0	7755.828791	2.58527626
7	30	417.86501		0	8173.693796	2.7245646
8	5	69.644168		0	8243.337964	2.74777932
9	0	0		0	8243.337964	2.74777932
10	0	0		0	8243.337964	2.74777932
11	0	0		0	8243.337964	2.74777932
12	0	0		18	8225.337964	2.74177932
13	0	0		18	8207.337964	2.73577932
14	0	0		18	8189.337964	2.72977932
15	8	111.43067		0	8300.768632	2.76692288
16	0	0		0	8300.768632	2.76692288
17	0	0		0	8300.768632	2.76692288
18	0	0		0	8300.768632	2.76692288
19	0	0		18	8282.768632	2.76092288
20	10	139.28834		0	8422.056967	2.80735232
21	0	0		0	8422.056967	2.80735232
22	15	208.9325	1500	0	7130.989469	2.37699649
23	20	278.57667		0	7409.566139	2.46985538
24	0	0		0	7409.566139	2.46985538
25	0	0		0	7409.566139	2.46985538
26	0	0		0	7409.566139	2.46985538
27	0	0		18	7391.566139	2.46385538
28	0	0		18	7373.566139	2.45785538
29	0	0		18	7355.566139	2.45185538
30	0	0		18	7337.566139	2.44585538
Juli						
1	0	0		18	7319.566139	2.43985538
2	0	0		18	7301.566139	2.43385538
3	0	0		18	7283.566139	2.42785538
4	0	0		18	7265.566139	2.42185538
5	0	0		18	7247.566139	2.41585538
6	15	208.9325		0	7456.498642	2.48549955
7	0	0		0	7456.498642	2.48549955
8	0	0		0	7456.498642	2.48549955
9	0	0		0	7456.498642	2.48549955
10	0	0		18	7438.498642	2.47949955

11	20	278.57667		0	7717.075312	2.57235844
12	45	626.79751		0	8343.872819	2.78129094
13	0	0		0	8343.872819	2.78129094
14	0	0		0	8343.872819	2.78129094
15	0	0		0	8343.872819	2.78129094
16	0	0		18	8325.872819	2.77529094
17	0	0		18	8307.872819	2.76929094
18	10	139.28834		0	8447.161154	2.81572038
19	0	0		0	8447.161154	2.81572038
20	0	0		0	8447.161154	2.81572038
21	0	0		0	8447.161154	2.81572038
22	0	0		18	8429.161154	2.80972038
23	0	0		18	8411.161154	2.80372038
24	0	0		18	8393.161154	2.79772038
25	0	0		18	8375.161154	2.79172038
26	0	0		18	8357.161154	2.78572038
27	0	0		18	8339.161154	2.77972038
28	0	0		18	8321.161154	2.77372038
29	0	0		18	8303.161154	2.76772038
30	0	0		18	8285.161154	2.76172038
31	0	0		18	8267.161154	2.75572038
Agustus						
1	0	0		18	8249.161154	2.74972038
2	0	0		18	8231.161154	2.74372038
3	20	278.57667		0	8509.737824	2.83657927
4	0	0		0	8509.737824	2.83657927
5	0	0		0	8509.737824	2.83657927
6	0	0		0	8509.737824	2.83657927
7	0	0		18	8491.737824	2.83057927
8	0	0		18	8473.737824	2.82457927
9	0	0		18	8455.737824	2.81857927
10	0	0		18	8437.737824	2.81257927
11	0	0		18	8419.737824	2.80657927
12	0	0		18	8401.737824	2.80057927
13	0	0		18	8383.737824	2.79457927
14	0	0		18	8365.737824	2.78857927
15	0	0		18	8347.737824	2.78257927
16	0	0		18	8329.737824	2.77657927
17	0	0		18	8311.737824	2.77057927
18	0	0		18	8293.737824	2.76457927
19	0	0		18	8275.737824	2.75857927
20	0	0		18	8257.737824	2.75257927
21	0	0		18	8239.737824	2.74657927
22	0	0		18	8221.737824	2.74057927
23	0	0		18	8203.737824	2.73457927
24	0	0		18	8185.737824	2.72857927
25	0	0		18	8167.737824	2.72257927
26	0	0		18	8149.737824	2.71657927
27	0	0		18	8131.737824	2.71057927
28	0	0		18	8113.737824	2.70457927
29	0	0		18	8095.737824	2.69857927
30	0	0		18	8077.737824	2.69257927
31	0	0		18	8059.737824	2.68657927

September						
1	0	0		18	8041.737824	2.68057927
2	0	0		18	8023.737824	2.67457927
3	0	0		18	8005.737824	2.66857927
4	0	0		18	7987.737824	2.66257927
5	0	0		18	7969.737824	2.65657927
6	0	0		18	7951.737824	2.65057927
7	0	0		18	7933.737824	2.64457927
8	0	0		18	7915.737824	2.63857927
9	0	0		18	7897.737824	2.63257927
10	0	0		18	7879.737824	2.62657927
11	0	0		18	7861.737824	2.62057927
12	0	0		18	7843.737824	2.61457927
13	0	0		18	7825.737824	2.60857927
14	0	0		18	7807.737824	2.60257927
15	0	0		18	7789.737824	2.59657927
16	0	0		18	7771.737824	2.59057927
17	0	0		18	7753.737824	2.58457927
18	0	0		18	7735.737824	2.57857927
19	0	0		18	7717.737824	2.57257927
20	0	0		18	7699.737824	2.56657927
21	0	0		18	7681.737824	2.56057927
22	0	0		18	7663.737824	2.55457927
23	0	0		18	7645.737824	2.54857927
24	0	0		18	7627.737824	2.54257927
25	0	0		18	7609.737824	2.53657927
26	0	0		18	7591.737824	2.53057927
27	0	0		18	7573.737824	2.52457927
28	0	0		18	7555.737824	2.51857927
29	0	0		18	7537.737824	2.51257927
30	0	0		18	7519.737824	2.50657927
Oktober						
1	0	0		18	7501.737824	2.50057927
2	0	0		18	7483.737824	2.49457927
3	0	0		18	7465.737824	2.48857927
4	0	0		18	7447.737824	2.48257927
5	0	0		18	7429.737824	2.47657927
6	0	0		18	7411.737824	2.47057927
7	0	0		18	7393.737824	2.46457927
8	0	0		18	7375.737824	2.45857927
9	0	0		18	7357.737824	2.45257927
10	0	0		18	7339.737824	2.44657927
11	0	0		18	7321.737824	2.44057927
12	0	0		18	7303.737824	2.43457927
13	0	0		18	7285.737824	2.42857927
14	0	0		18	7267.737824	2.42257927
15	0	0		18	7249.737824	2.41657927
16	0	0		18	7231.737824	2.41057927
17	0	0		18	7213.737824	2.40457927
18	18	250.719		0	7464.456827	2.48815228
19	20	278.57667		0	7743.033497	2.58101117
20	0	0		0	7743.033497	2.58101117
21	0	0		0	7743.033497	2.58101117
22	0	0		0	7743.033497	2.58101117
23	10	139.28834		0	7882.321832	2.62744061
24	0	0		0	7882.321832	2.62744061
25	0	0		0	7882.321832	2.62744061
26	0	0		0	7882.321832	2.62744061
27	0	0		18	7864.321832	2.62144061
28	0	0		18	7846.321832	2.61544061
29	0	0		18	7828.321832	2.60944061
30	0	0		18	7810.321832	2.60344061
31	0	0		18	7792.321832	2.59744061
November						
1	0	0		18	7774.321832	2.59144061
2	0	0		18	7756.321832	2.58544061
3	0	0		18	7738.321832	2.57944061
4	0	0		18	7720.321832	2.57344061
5	0	0		18	7702.321832	2.56744061
6	0	0		18	7684.321832	2.56144061
7	0	0		18	7666.321832	2.55544061
8	0	0		18	7648.321832	2.54944061
9	0	0		18	7630.321832	2.54344061
10	0	0		18	7612.321832	2.53744061

11	0	0		18	7594.321832	2.53144061
12	0	0		18	7576.321832	2.52544061
13	0	0		18	7558.321832	2.51944061
14	0	0		18	7540.321832	2.51344061
15	0	0		18	7522.321832	2.50744061
16	0	0		18	7504.321832	2.50144061
17	0	0		18	7486.321832	2.49544061
18	0	0		18	7468.321832	2.48944061
19	0	0		18	7450.321832	2.48344061
20	26	362.14967		0	7812.471503	2.60415717
21	7	97.501835		0	7909.973338	2.63665778
22	0	0		0	7909.973338	2.63665778
23	0	0		0	7909.973338	2.63665778
24	0	0		0	7909.973338	2.63665778
25	0	0		18	7891.973338	2.63065778
26	0	0		18	7873.973338	2.62465778
27	0	0		18	7855.973338	2.61865778
28	0	0		18	7837.973338	2.61265778
29	0	0		18	7819.973338	2.60665778
30	0	0		18	7801.973338	2.60065778
Desember						
1	25	348.22084		0	8150.194175	2.71673139
2	20	278.57667		0	8428.770845	2.80959028
3	0	0		0	8428.770845	2.80959028
4	8	111.43067		0	8540.201513	2.84673384
5	0	0		0	8540.201513	2.84673384
6	0	0		0	8540.201513	2.84673384
7	26	362.14967		0	8902.351184	2.96745039
8	10	139.28834	1500	0	7541.639519	2.51387984
9	0	0		0	7541.639519	2.51387984
10	0	0		0	7541.639519	2.51387984
11	0	0		0	7541.639519	2.51387984
12	25	348.22084		0	7889.860357	2.62995345
13	20	278.57667	1500	0	6668.437027	2.22281234
14	0	0		0	6668.437027	2.22281234
15	110	1532.1717	1500	0	6700.608712	2.23353624
16	0	0		0	6700.608712	2.23353624
17	10	139.28834		0	6839.897047	2.27996568
18	0	0		0	6839.897047	2.27996568
19	10	139.28834	1500	0	5479.185382	1.82639513
20	5	69.644168		0	5548.829549	1.84960985
21	20	278.57667		0	5827.406219	1.94246874
22	0	0		0	5827.406219	1.94246874
23	15	208.9325	1500	0	4536.338722	1.51211291
24	0	0		0	4536.338722	1.51211291
25	0	0		0	4536.338722	1.51211291
26	0	0		0	4536.338722	1.51211291
27	10	139.28834		0	4675.627057	1.55854235
28	0	0		0	4675.627057	1.55854235
29	0	0		0	4675.627057	1.55854235
30	0	0		0	4675.627057	1.55854235
31	0	0		18	4657.627057	1.55254235

**ROBOTIKA ITS**

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	72	844.703748	1200	0	4432.93883	1.773175532
2	49	574.8678285		0	5007.806659	2.003122663
3	0	0		0	5007.806659	2.003122663
4	0	0		0	5007.806659	2.003122663
5	33	387.1558845	1200	0	4194.962543	1.677985017
6	24	281.567916		0	4476.530459	1.790612184
7	0	0		0	4476.530459	1.790612184
8	0	0		0	4476.530459	1.790612184
9	0	0		0	4476.530459	1.790612184
10	32	375.423888		0	4851.954347	1.940781739
11	0	0		0	4851.954347	1.940781739
12	6	70.391979		0	4922.346326	1.96893853
13	0	0		0	4922.346326	1.96893853
14	0	0		0	4922.346326	1.96893853
15	52	610.063818		0	5532.410144	2.212964058
16	61	715.6517865	1200	0	5048.061931	2.019224772
17	20	234.63993		0	5282.701861	2.113080744
18	16	187.711944		0	5470.413805	2.188165522
19	0	0		0	5470.413805	2.188165522
20	55	645.2598075	1200	0	4915.673612	1.966269445
21	0	0		0	4915.673612	1.966269445
22	7	82.1239755		0	4997.797588	1.999119035
23	6	70.391979		0	5068.189567	2.027275827
24	4	46.927986		0	5115.117553	2.046047021
25	9	105.5879685		0	5220.705521	2.088282208
26	0	0		0	5220.705521	2.088282208
27	0	0		0	5220.705521	2.088282208
28	0	0		0	5220.705521	2.088282208
29	0	0		18	5202.705521	2.081082208
30	85	997.2197025		0	6199.925224	2.479970089
31	20	234.63993	1200	0	5234.565154	2.093826061
Februari						
1	11	129.0519615		0	5363.617115	2.145446846
2	10	117.319965		0	5480.93708	2.192374832
3	24	281.567916	1200	0	4562.504996	1.825001998
4	10	117.319965		0	4679.824961	1.871929984
5	0	0		0	4679.824961	1.871929984
6	0	0		0	4679.824961	1.871929984
7	9	105.5879685		0	4785.41293	1.914165172
8	67	786.0437655	1200	0	4371.456695	1.748582678
9	5	58.6599825		0	4430.116678	1.772046671
10	13	152.5159545		0	4582.632632	1.833053053
11	27	316.7639055		0	4899.396538	1.959758615
12	21	246.3719265		0	5145.768464	2.058307386
13	9	105.5879685		0	5251.356433	2.100542573
14	7	82.1239755		0	5333.480408	2.133392163
15	10	117.319965		0	5450.800373	2.180320149
16	55	645.2598075	1200	0	4896.060181	1.958424072
17	0	0		0	4896.060181	1.958424072
18	3	35.1959895		0	4931.25617	1.972502468
19	0	0		0	4931.25617	1.972502468
20	3	35.1959895		0	4966.45216	1.986580864
21	4	46.927986		0	5013.380146	2.005352058
22	0	0		0	5013.380146	2.005352058
23	0	0		0	5013.380146	2.005352058
24	0	0		0	5013.380146	2.005352058
25	38	445.815867		0	5459.196013	2.183678405
26	19	222.9079335		0	5682.103946	2.272841578
27	0	0		0	5682.103946	2.272841578
28	23	269.8359195	1200	0	4751.939866	1.900775946
Maret						
1	15	175.9799475		0	4927.919813	1.971167925
2	0	0		0	4927.919813	1.971167925
3	0	0		0	4927.919813	1.971167925
4	0	0		0	4927.919813	1.971167925
5	0	0		18	4909.919813	1.963967925
6	25	293.2999125	1200	0	4003.219726	1.60128789
7	12	140.783958		0	4144.003684	1.657601473
8	0	0		0	4144.003684	1.657601473
9	0	0		0	4144.003684	1.657601473
10	0	0		0	4144.003684	1.657601473



11	0	0		18	4126.003684	1.650401473
12	0	0		0	4126.003684	1.650401473
13	19	222.9079335		0	4348.911617	1.739564647
14	11	129.0519615		0	4477.963579	1.791185431
15	7	82.1239755		0	4560.087554	1.824035022
16	5	58.6599825		0	4618.747537	1.847499015
17	14	164.247951		0	4782.995488	1.913198195
18	20	234.63993		0	5017.635418	2.007054167
19	0	0		0	5017.635418	2.007054167
20	21	246.3719265		0	5264.007344	2.105602938
21	0	0		0	5264.007344	2.105602938
22	0	0		0	5264.007344	2.105602938
23	0	0		0	5264.007344	2.105602938
24	7	82.1239755		0	5346.13132	2.138452528
25	0	0		0	5346.13132	2.138452528
26	5	58.6599825	1200	0	4204.791302	1.681916521
27	35	410.6198775		0	4615.41118	1.846164472
28	0	0		0	4615.41118	1.846164472
29	0	0		0	4615.41118	1.846164472
30	0	0		0	4615.41118	1.846164472
31	0	0		18	4597.41118	1.838964472
April						
1	0	0		0	4597.41118	1.838964472
2	8	93.855972		0	4691.267152	1.876506861
3	0	0		0	4691.267152	1.876506861
4	0	0		0	4691.267152	1.876506861
5	19	222.9079335		0	4914.175085	1.965670034
6	0	0		0	4914.175085	1.965670034
7	0	0		0	4914.175085	1.965670034
8	30	351.959895		0	5266.13498	2.106453992
9	0	0		0	5266.13498	2.106453992
10	0	0		0	5266.13498	2.106453992
11	0	0		0	5266.13498	2.106453992
12	0	0		18	5248.13498	2.099253992
13	0	0		18	5230.13498	2.092053992
14	0	0		18	5212.13498	2.084853992
15	22	258.103923		0	5470.238903	2.188095561
16	0	0		0	5470.238903	2.188095561
17	0	0		0	5470.238903	2.188095561
18	0	0		0	5470.238903	2.188095561
19	0	0		18	5452.238903	2.180895561
20	0	0		18	5434.238903	2.173695561
21	19	222.9079335		0	5657.146837	2.262858735
22	0	0		0	5657.146837	2.262858735
23	0	0		0	5657.146837	2.262858735
24	0	0		0	5657.146837	2.262858735
25	0	0		18	5639.146837	2.255658735
26	0	0		18	5621.146837	2.248458735
27	4	46.927986		0	5668.074823	2.267229929
28	0	0		0	5668.074823	2.267229929
29	0	0		0	5668.074823	2.267229929
30	0	0		0	5668.074823	2.267229929

Mei						
1	0	0		18	5650.074823	2.260029929
2	0	0		18	5632.074823	2.252829929
3	9	105.5879685	1200	0	4537.662791	1.815065116
4	0	0		0	4537.662791	1.815065116
5	0	0		0	4537.662791	1.815065116
6	0	0		0	4537.662791	1.815065116
7	0	0		18	4519.662791	1.807865116
8	0	0		18	4501.662791	1.800665116
9	0	0		18	4483.662791	1.793465116
10	0	0		18	4465.662791	1.786265116
11	0	0		18	4447.662791	1.779065116
12	0	0		18	4429.662791	1.771865116
13	0	0		18	4411.662791	1.764665116
14	24	281.567916		0	4693.230707	1.877292283
15	17	199.4439405		0	4892.674648	1.957069859
16	0	0		0	4892.674648	1.957069859
17	0	0		0	4892.674648	1.957069859
18	0	0		0	4892.674648	1.957069859
19	0	0		18	4874.674648	1.949869859
20	0	0		18	4856.674648	1.942669859
21	0	0		18	4838.674648	1.935469859
22	0	0		18	4820.674648	1.928269859
23	0	0		18	4802.674648	1.921069859
24	0	0		18	4784.674648	1.913869859
25	0	0		18	4766.674648	1.906669859
26	0	0		18	4748.674648	1.899469859
27	0	0		18	4730.674648	1.892269859
28	0	0		18	4712.674648	1.885069859
29	0	0		18	4694.674648	1.877869859
30	0	0		18	4676.674648	1.870669859
31	0	0		18	4658.674648	1.863469859
Juni						
1	0	0		18	4640.674648	1.856269859
2	0	0		18	4622.674648	1.849069859
3	0	0		18	4604.674648	1.841869859
4	0	0		18	4586.674648	1.834669859
5	0	0		18	4568.674648	1.827469859
6	0	0		18	4550.674648	1.820269859
7	0	0		18	4532.674648	1.813069859
8	0	0		18	4514.674648	1.805869859
9	0	0		18	4496.674648	1.798669859
10	0	0		18	4478.674648	1.791469859
11	0	0		18	4460.674648	1.784269859
12	0	0		18	4442.674648	1.777069859
13	0	0		18	4424.674648	1.769869859
14	0	0		18	4406.674648	1.762669859
15	0	0		18	4388.674648	1.755469859
16	0	0		18	4370.674648	1.748269859
17	0	0		18	4352.674648	1.741069859
18	0	0		18	4334.674648	1.733869859
19	0	0		18	4316.674648	1.726669859
20	0	0		18	4298.674648	1.719469859
21	0	0		18	4280.674648	1.712269859
22	0	0		18	4262.674648	1.705069859
23	0	0		18	4244.674648	1.697869859
24	0	0		18	4226.674648	1.690669859
25	0	0		18	4208.674648	1.683469859
26	0	0		18	4190.674648	1.676269859
27	0	0		18	4172.674648	1.669069859
28	0	0		18	4154.674648	1.661869859
29	0	0		18	4136.674648	1.654669859
30	0	0		18	4118.674648	1.647469859
Juli						
1	0	0		18	4100.674648	1.640269859
2	0	0		18	4082.674648	1.633069859
3	0	0		18	4064.674648	1.625869859
4	0	0		18	4046.674648	1.618669859
5	0	0		18	4028.674648	1.611469859
6	0	0		18	4010.674648	1.604269859
7	0	0		18	3992.674648	1.597069859
8	0	0		18	3974.674648	1.589869859
9	0	0		18	3956.674648	1.582669859
10	0	0		18	3938.674648	1.575469859

11	0	0		18	3920.674648	1.568269859
12	0	0		18	3902.674648	1.561069859
13	0	0		18	3884.674648	1.553869859
14	0	0		18	3866.674648	1.546669859
15	0	0		18	3848.674648	1.539469859
16	0	0		18	3830.674648	1.532269859
17	0	0		18	3812.674648	1.525069859
18	0	0		18	3794.674648	1.517869859
19	0	0		18	3776.674648	1.510669859
20	0	0		18	3758.674648	1.503469859
21	0	0		18	3740.674648	1.496269859
22	0	0		18	3722.674648	1.489069859
23	0	0		18	3704.674648	1.481869859
24	0	0		18	3686.674648	1.474669859
25	0	0		18	3668.674648	1.467469859
26	0	0		18	3650.674648	1.460269859
27	0	0		18	3632.674648	1.453069859
28	0	0		18	3614.674648	1.445869859
29	0	0		18	3596.674648	1.438669859
30	0	0		18	3578.674648	1.431469859
31	0	0		18	3560.674648	1.424269859
Agustus						
1	0	0		18	3542.674648	1.417069859
2	0	0		18	3524.674648	1.409869859
3	0	0		18	3506.674648	1.402669859
4	0	0		18	3488.674648	1.395469859
5	0	0		18	3470.674648	1.388269859
6	0	0		18	3452.674648	1.381069859
7	0	0		18	3434.674648	1.373869859
8	0	0		18	3416.674648	1.366669859
9	0	0		18	3398.674648	1.359469859
10	0	0		18	3380.674648	1.352269859
11	0	0		18	3362.674648	1.345069859
12	0	0		18	3344.674648	1.337869859
13	0	0		18	3326.674648	1.330669859
14	0	0		18	3308.674648	1.323469859
15	0	0		18	3290.674648	1.316269859
16	0	0		18	3272.674648	1.309069859
17	0	0		18	3254.674648	1.301869859
18	0	0		18	3236.674648	1.294669859
19	0	0		18	3218.674648	1.287469859
20	0	0		18	3200.674648	1.280269859
21	0	0		18	3182.674648	1.273069859
22	0	0		18	3164.674648	1.265869859
23	0	0		18	3146.674648	1.258669859
24	0	0		18	3128.674648	1.251469859
25	0	0		18	3110.674648	1.244269859
26	0	0		18	3092.674648	1.237069859
27	0	0		18	3074.674648	1.229869859
28	0	0		18	3056.674648	1.222669859
29	0	0		18	3038.674648	1.215469859
30	0	0		18	3020.674648	1.208269859
31	0	0		18	3002.674648	1.201069859

September						
1	0	0		18	2984.674648	1.193869859
2	0	0		18	2966.674648	1.186669859
3	0	0		18	2948.674648	1.179469859
4	0	0		18	2930.674648	1.172269859
5	0	0		18	2912.674648	1.165069859
6	0	0		18	2894.674648	1.157869859
7	0	0		18	2876.674648	1.150669859
8	0	0		18	2858.674648	1.143469859
9	0	0		18	2840.674648	1.136269859
10	0	0		18	2822.674648	1.129069859
11	0	0		18	2804.674648	1.121869859
12	0	0		18	2786.674648	1.114669859
13	0	0		18	2768.674648	1.107469859
14	0	0		18	2750.674648	1.100269859
15	0	0		18	2732.674648	1.093069859
16	0	0		18	2714.674648	1.085869859
17	0	0		18	2696.674648	1.078669859
18	0	0		18	2678.674648	1.071469859
19	0	0		18	2660.674648	1.064269859
20	0	0		18	2642.674648	1.057069859
21	0	0		18	2624.674648	1.049869859
22	0	0		18	2606.674648	1.042669859
23	0	0		18	2588.674648	1.035469859
24	0	0		18	2570.674648	1.028269859
25	0	0		18	2552.674648	1.021069859
26	0	0		18	2534.674648	1.013869859
27	0	0		18	2516.674648	1.006669859
28	0	0		18	2498.674648	0.999469859
29	0	0		18	2480.674648	0.992269859
30	0	0		18	2462.674648	0.985069859
Oktober						
1	0	0		18	2444.674648	0.977869859
2	0	0		18	2426.674648	0.970669859
3	0	0		18	2408.674648	0.963469859
4	0	0		18	2390.674648	0.956269859
5	0	0		18	2372.674648	0.949069859
6	0	0		18	2354.674648	0.941869859
7	0	0		18	2336.674648	0.934669859
8	0	0		18	2318.674648	0.927469859
9	0	0		18	2300.674648	0.920269859
10	0	0		18	2282.674648	0.913069859
11	0	0		18	2264.674648	0.905869859
12	4	46.927986		18	2293.602634	0.917441053
13	0	0		18	2275.602634	0.910241053
14	0	0		18	2257.602634	0.903041053
15	0	0		18	2239.602634	0.895841053
16	0	0		18	2221.602634	0.888641053
17	0	0		18	2203.602634	0.881441053
18	0	0		18	2185.602634	0.874241053
19	0	0		18	2167.602634	0.867041053
20	0	0		18	2149.602634	0.859841053
21	0	0		18	2131.602634	0.852641053
22	0	0		18	2113.602634	0.845441053
23	0	0		18	2095.602634	0.838241053
24	0	0		18	2077.602634	0.831041053
25	0	0		18	2059.602634	0.823841053
26	0	0		18	2041.602634	0.816641053
27	0	0		18	2023.602634	0.809441053
28	0	0		18	2005.602634	0.802241053
29	0	0		18	1987.602634	0.795041053
30	0	0		18	1969.602634	0.787841053
31	0	0		18	1951.602634	0.780641053
November						
1	0	0		18	1933.602634	0.773441053
2	0	0		18	1915.602634	0.766241053
3	0	0		18	1897.602634	0.759041053
4	0	0		18	1879.602634	0.751841053
5	0	0		18	1861.602634	0.744641053
6	0	0		18	1843.602634	0.737441053
7	0	0		18	1825.602634	0.730241053
8	10	117.319965		0	1942.922599	0.777169039
9	0	0		0	1942.922599	0.777169039
10	0	0		0	1942.922599	0.777169039

11	0	0		0	1942.922599	0.777169039
12	0	0		18	1924.922599	0.769969039
13	0	0		18	1906.922599	0.762769039
14	0	0		18	1888.922599	0.755569039
15	0	0		18	1870.922599	0.748369039
16	0	0		18	1852.922599	0.741169039
17	0	0		18	1834.922599	0.733969039
18	13	152.5159545		0	1987.438553	0.794975421
19	5	58.6599825		0	2046.098536	0.818439414
20	47	551.4038355		0	2597.502371	1.039000948
21	0	0		0	2597.502371	1.039000948
22	0	0		0	2597.502371	1.039000948
23	0	0		0	2597.502371	1.039000948
24	0	0		18	2579.502371	1.031800948
25	0	0		18	2561.502371	1.024600948
26	0	0		18	2543.502371	1.017400948
27	0	0		18	2525.502371	1.010200948
28	0	0		18	2507.502371	1.003000948
29	0	0		18	2489.502371	0.995800948
30	0	0		18	2471.502371	0.988600948
Desenber						
1	47	551.4038355		0	3022.906207	1.209162483
2	31	363.6918915		0	3386.598098	1.354639239
3	24	281.567916		0	3668.166014	1.467266406
4	0	0		0	3668.166014	1.467266406
5	40	469.27986		0	4137.445874	1.65497835
6	0	0		0	4137.445874	1.65497835
7	0	0		0	4137.445874	1.65497835
8	0	0		0	4137.445874	1.65497835
9	0	0		18	4119.445874	1.64777835
10	21	246.3719265		0	4365.817801	1.74632712
11	22	258.103923		0	4623.921724	1.849568689
12	0	0		0	4623.921724	1.849568689
13	0	0		0	4623.921724	1.849568689
14	0	0		0	4623.921724	1.849568689
15	28	328.495902		0	4952.417626	1.98096705
16	0	0		0	4952.417626	1.98096705
17	11	129.0519615		0	5081.469587	2.032587835
18	10	117.319965		0	5198.789552	2.079515821
19	0	0		0	5198.789552	2.079515821
20	10	117.319965		0	5316.109517	2.126443807
21	18	211.175937		0	5527.285454	2.210914182
22	15	175.9799475		0	5703.265402	2.281306161
23	16	187.711944	1200	0	4690.977346	1.876390938
24	0	0		0	4690.977346	1.876390938
25	0	0		0	4690.977346	1.876390938
26	26	305.031909		0	4996.009255	1.998403702
27	64	750.847776		0	5746.857031	2.298742812
28	30	351.959895	1200	0	4898.816926	1.95952677
29	20	234.63993		0	5133.456856	2.053382742
30	45	527.9398425		0	5661.396698	2.264558679
31	48	563.135832	1200	0	5024.53253	2.009813012

## FTK ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O(m3)	DS (m3)	tinggi air (m)
1	15	208.932503		0	4866.559559	1.62218652
2	20	278.57667		0	5145.136229	1.71504541
3	10	139.288335		0	5284.424564	1.761474855
4	140	1950.03669	1500	0	5734.461254	1.911487085
5	13	181.074836		0	5915.53609	1.971845363
6	25	348.220838	1500	0	4763.756927	1.587918976
7	0	0		0	4763.756927	1.587918976
8	0	0		0	4763.756927	1.587918976
9	0	0		0	4763.756927	1.587918976
10	10	139.288335		0	4903.045262	1.634348421
11	0	0		0	4903.045262	1.634348421
12	20	278.57667	1500	0	3681.621932	1.227207311
13	0	0		0	3681.621932	1.227207311
14	80	1114.30668		0	4795.928612	1.598642871
15	0	0		0	4795.928612	1.598642871
16	30	417.865005		0	5213.793617	1.737931206
17	0	0		0	5213.793617	1.737931206
18	0	0		0	5213.793617	1.737931206
19	0	0		0	5213.793617	1.737931206
20	0	0		18	5195.793617	1.731931206
21	0	0		18	5177.793617	1.725931206
22	0	0		18	5159.793617	1.719931206
23	0	0		18	5141.793617	1.713931206
24	0	0		18	5123.793617	1.707931206
25	0	0		18	5105.793617	1.701931206
26	0	0		18	5087.793617	1.695931206
27	0	0		18	5069.793617	1.689931206
28	15	208.932503		0	5278.72612	1.759575373
29	0	0		0	5278.72612	1.759575373
30	0	0		0	5278.72612	1.759575373
31	0	0		0	5278.72612	1.759575373
Februari						
1	20	278.57667	1500	0	4057.30279	1.352434263
2	0	0		0	4057.30279	1.352434263
3	0	0		0	4057.30279	1.352434263
4	0	0		0	4057.30279	1.352434263
5	0	0		18	4039.30279	1.346434263
6	27	376.078505		0	4415.381294	1.471793765
7	50	696.441675		0	5111.822969	1.70394099
8	0	0		0	5111.822969	1.70394099
9	30	417.865005		0	5529.687974	1.843229325
10	0	0		0	5529.687974	1.843229325
11	15	208.932503		0	5738.620477	1.912873492
12	6	83.573001		0	5822.193478	1.940731159
13	20	278.57667	1500	0	4600.770148	1.533590049
14	0	0		0	4600.770148	1.533590049
15	0	0		0	4600.770148	1.533590049
16	0	0		0	4600.770148	1.533590049
17	15	208.932503		0	4809.70265	1.603234217
18	20	278.57667		0	5088.27932	1.696093107
19	0	0		0	5088.27932	1.696093107
20	40	557.15334		0	5645.43266	1.881810887
21	15	208.932503		0	5854.365163	1.951455054
22	57	793.94351	1500	0	5148.308672	1.716102891
23	0	0		0	5148.308672	1.716102891
24	0	0		0	5148.308672	1.716102891
25	30	417.865005		0	5566.173677	1.855391226
26	47	654.655175	1500	0	4720.828852	1.573609617
27	5	69.6441675		0	4790.473019	1.59682434
28	27	376.078505		0	5166.551524	1.722183841
Maret						
1	47	654.655175	1500	0	4321.206698	1.440402233
2	0	0		0	4321.206698	1.440402233
3	38	529.295673		0	4850.502371	1.616834124
4	0	0		0	4850.502371	1.616834124
5	0	0		0	4850.502371	1.616834124
6	0	0		0	4850.502371	1.616834124
7	40	557.15334		0	5407.655711	1.802551904
8	0	0		0	5407.655711	1.802551904
9	0	0		0	5407.655711	1.802551904

10	0	0		0	5407.655711	1.802551904
11	27	376.078505		0	5783.734216	1.927911405
12	0	0		0	5783.734216	1.927911405
13	0	0		0	5783.734216	1.927911405
14	0	0		0	5783.734216	1.927911405
15	30	417.865005	1500	0	4701.599221	1.56719974
16	0	0		0	4701.599221	1.56719974
17	0	0		0	4701.599221	1.56719974
18	20	278.57667		0	4980.175891	1.66005863
19	45	626.797508		0	5606.973398	1.868991133
20	50	696.441675	1500	0	4803.415073	1.601138358
21	0	0		0	4803.415073	1.601138358
22	0	0		0	4803.415073	1.601138358
23	0	0		0	4803.415073	1.601138358
24	12	167.146002	1500	0	3470.561075	1.156853692
25	0	0		0	3470.561075	1.156853692
26	0	0		0	3470.561075	1.156853692
27	0	0		0	3470.561075	1.156853692
28	45	626.797508		0	4097.358583	1.365786194
29	60	835.73001		0	4933.088593	1.644362864
30	0	0		0	4933.088593	1.644362864
31	0	0		0	4933.088593	1.644362864
April						
1	0	0		0	4933.088593	1.644362864
2	0	0		18	4915.088593	1.638362864
3	0	0		18	4897.088593	1.632362864
4	0	0		18	4879.088593	1.626362864
5	0	0		18	4861.088593	1.620362864
6	0	0		18	4843.088593	1.614362864
7	0	0		18	4825.088593	1.608362864
8	0	0		18	4807.088593	1.602362864
9	40	557.15334	1500	0	3864.241933	1.288080644
10	15	208.932503		0	4073.174435	1.357724812
11	0	0		0	4073.174435	1.357724812
12	25	348.220838		0	4421.395273	1.473798424
13	0	0		0	4421.395273	1.473798424
14	0	0		0	4421.395273	1.473798424
15	0	0		0	4421.395273	1.473798424
16	0	0		18	4403.395273	1.467798424
17	12	167.146002		0	4570.541275	1.523513758
18	0	0		0	4570.541275	1.523513758
19	0	0		0	4570.541275	1.523513758
20	0	0		0	4570.541275	1.523513758
21	8	111.430668		0	4681.971943	1.560657314
22	0	0		0	4681.971943	1.560657314
23	0	0		0	4681.971943	1.560657314
24	0	0		0	4681.971943	1.560657314
25	0	0		18	4663.971943	1.554657314
26	0	0		18	4645.971943	1.548657314
27	0	0		18	4627.971943	1.542657314
28	0	0		18	4609.971943	1.536657314
29	0	0		18	4591.971943	1.530657314
30	58	807.872343		0	5399.844286	1.799948095

Mei						
1	0	0		0	5399.844286	1.799948095
2	0	0		0	5399.844286	1.799948095
3	0	0		0	5399.844286	1.799948095
4	0	0		18	5381.844286	1.793948095
5	0	0		18	5363.844286	1.787948095
6	0	0		18	5345.844286	1.781948095
7	0	0		18	5327.844286	1.775948095
8	0	0		18	5309.844286	1.769948095
9	0	0		18	5291.844286	1.763948095
10	30	417.865005		0	5709.709291	1.90323643
11	0	0		0	5709.709291	1.90323643
12	0	0		0	5709.709291	1.90323643
13	0	0		0	5709.709291	1.90323643
14	0	0		18	5691.709291	1.89723643
15	0	0		18	5673.709291	1.89123643
16	0	0		18	5655.709291	1.88523643
17	0	0		18	5637.709291	1.87923643
18	0	0		18	5619.709291	1.87323643
19	0	0		18	5601.709291	1.86723643
20	0	0		18	5583.709291	1.86123643
21	0	0		18	5565.709291	1.85523643
22	0	0		18	5547.709291	1.84923643
23	0	0		18	5529.709291	1.84323643
24	0	0		18	5511.709291	1.83723643
25	0	0		18	5493.709291	1.83123643
26	0	0		18	5475.709291	1.82523643
27	0	0		18	5457.709291	1.81923643
28	0	0		18	5439.709291	1.81323643
29	20	278.57667		0	5718.285961	1.90609532
30	0	0		0	5718.285961	1.90609532
31	5	69.6441675		0	5787.930128	1.929310043
Juni						
1	5	69.6441675		0	5857.574296	1.952524765
2	0	0		0	5857.574296	1.952524765
3	0	0		0	5857.574296	1.952524765
4	0	0		0	5857.574296	1.952524765
5	0	0		18	5839.574296	1.946524765
6	0	0		18	5821.574296	1.940524765
7	0	0		18	5803.574296	1.934524765
8	0	0		18	5785.574296	1.928524765
9	0	0		18	5767.574296	1.922524765
10	0	0		18	5749.574296	1.916524765
11	0	0		18	5731.574296	1.910524765
12	0	0		18	5713.574296	1.904524765
13	0	0		18	5695.574296	1.898524765
14	0	0		18	5677.574296	1.892524765
15	0	0		18	5659.574296	1.886524765
16	0	0		18	5641.574296	1.880524765
17	0	0		18	5623.574296	1.874524765
18	0	0		18	5605.574296	1.868524765
19	0	0		18	5587.574296	1.862524765
20	0	0		18	5569.574296	1.856524765
21	0	0		18	5551.574296	1.850524765
22	0	0		18	5533.574296	1.844524765
23	0	0		18	5515.574296	1.838524765
24	0	0		18	5497.574296	1.832524765
25	0	0		18	5479.574296	1.826524765
26	0	0		18	5461.574296	1.820524765
27	0	0		18	5443.574296	1.814524765
28	0	0		18	5425.574296	1.808524765
29	0	0		18	5407.574296	1.802524765
30	0	0		18	5389.574296	1.796524765
Juli						
1	0	0		18	5371.574296	1.790524765
2	0	0		18	5353.574296	1.784524765
3	0	0		18	5335.574296	1.778524765
4	0	0		18	5317.574296	1.772524765
5	0	0		18	5299.574296	1.766524765
6	0	0		18	5281.574296	1.760524765
7	0	0		18	5263.574296	1.754524765
8	0	0		18	5245.574296	1.748524765
9	0	0		18	5227.574296	1.742524765
10	0	0		18	5209.574296	1.736524765



11	0	0		18	5191.574296	1.730524765
12	0	0		18	5173.574296	1.724524765
13	0	0		18	5155.574296	1.718524765
14	0	0		18	5137.574296	1.712524765
15	0	0		18	5119.574296	1.706524765
16	0	0		18	5101.574296	1.700524765
17	0	0		18	5083.574296	1.694524765
18	0	0		18	5065.574296	1.688524765
19	0	0		18	5047.574296	1.682524765
20	0	0		18	5029.574296	1.676524765
21	0	0		18	5011.574296	1.670524765
22	0	0		18	4993.574296	1.664524765
23	0	0		18	4975.574296	1.658524765
24	0	0		18	4957.574296	1.652524765
25	0	0		18	4939.574296	1.646524765
26	0	0		18	4921.574296	1.640524765
27	0	0		18	4903.574296	1.634524765
28	0	0		18	4885.574296	1.628524765
29	0	0		18	4867.574296	1.622524765
30	0	0		18	4849.574296	1.616524765
31	0	0		18	4831.574296	1.610524765
Agustus						
1	0	0		18	4813.574296	1.604524765
2	0	0		18	4795.574296	1.598524765
3	0	0		18	4777.574296	1.592524765
4	0	0		18	4759.574296	1.586524765
5	0	0		18	4741.574296	1.580524765
6	0	0		18	4723.574296	1.574524765
7	0	0		18	4705.574296	1.568524765
8	0	0		18	4687.574296	1.562524765
9	0	0		18	4669.574296	1.556524765
10	0	0		18	4651.574296	1.550524765
11	0	0		18	4633.574296	1.544524765
12	0	0		18	4615.574296	1.538524765
13	0	0		18	4597.574296	1.532524765
14	0	0		18	4579.574296	1.526524765
15	0	0		18	4561.574296	1.520524765
16	0	0		18	4543.574296	1.514524765
17	0	0		18	4525.574296	1.508524765
18	0	0		18	4507.574296	1.502524765
19	0	0		18	4489.574296	1.496524765
20	0	0		18	4471.574296	1.490524765
21	0	0		18	4453.574296	1.484524765
22	0	0		18	4435.574296	1.478524765
23	0	0		18	4417.574296	1.472524765
24	0	0		18	4399.574296	1.466524765
25	0	0		18	4381.574296	1.460524765
26	0	0		18	4363.574296	1.454524765
27	0	0		18	4345.574296	1.448524765
28	0	0		18	4327.574296	1.442524765
29	0	0		18	4309.574296	1.436524765
30	0	0		18	4291.574296	1.430524765
31	0	0		18	4273.574296	1.424524765

September						
1	0	0		18	4255.574296	1.418524765
2	0	0		18	4237.574296	1.412524765
3	0	0		18	4219.574296	1.406524765
4	0	0		18	4201.574296	1.400524765
5	0	0		18	4183.574296	1.394524765
6	0	0		18	4165.574296	1.388524765
7	0	0		18	4147.574296	1.382524765
8	0	0		18	4129.574296	1.376524765
9	0	0		18	4111.574296	1.370524765
10	0	0		18	4093.574296	1.364524765
11	0	0		18	4075.574296	1.358524765
12	0	0		18	4057.574296	1.352524765
13	0	0		18	4039.574296	1.346524765
14	0	0		18	4021.574296	1.340524765
15	0	0		18	4003.574296	1.334524765
16	0	0		18	3985.574296	1.328524765
17	0	0		18	3967.574296	1.322524765
18	0	0		18	3949.574296	1.316524765
19	0	0		18	3931.574296	1.310524765
20	0	0		18	3913.574296	1.304524765
21	0	0		18	3895.574296	1.298524765
22	0	0		18	3877.574296	1.292524765
23	0	0		18	3859.574296	1.286524765
24	0	0		18	3841.574296	1.280524765
25	0	0		18	3823.574296	1.274524765
26	0	0		18	3805.574296	1.268524765
27	0	0		18	3787.574296	1.262524765
28	0	0		18	3769.574296	1.256524765
29	0	0		18	3751.574296	1.250524765
30	0	0		18	3733.574296	1.244524765
Oktober						
1	0	0		18	3715.574296	1.238524765
2	0	0		18	3697.574296	1.232524765
3	0	0		18	3679.574296	1.226524765
4	0	0		18	3661.574296	1.220524765
5	0	0		18	3643.574296	1.214524765
6	0	0		18	3625.574296	1.208524765
7	0	0		18	3607.574296	1.202524765
8	0	0		18	3589.574296	1.196524765
9	0	0		18	3571.574296	1.190524765
10	0	0		18	3553.574296	1.184524765
11	0	0		18	3535.574296	1.178524765
12	0	0		18	3517.574296	1.172524765
13	0	0		18	3499.574296	1.166524765
14	0	0		18	3481.574296	1.160524765
15	0	0		18	3463.574296	1.154524765
16	0	0		18	3445.574296	1.148524765
17	0	0		18	3427.574296	1.142524765
18	0	0		18	3409.574296	1.136524765
19	0	0		18	3391.574296	1.130524765
20	0	0		18	3373.574296	1.124524765
21	0	0		18	3355.574296	1.118524765
22	0	0		18	3337.574296	1.112524765
23	0	0		18	3319.574296	1.106524765
24	0	0		18	3301.574296	1.100524765
25	0	0		18	3283.574296	1.094524765
26	0	0		18	3265.574296	1.088524765
27	0	0		18	3247.574296	1.082524765
28	0	0		18	3229.574296	1.076524765
29	0	0		18	3211.574296	1.070524765
30	0	0		18	3193.574296	1.064524765
31	0	0		18	3175.574296	1.058524765
November						
1	0	0		18	3157.574296	1.052524765
2	0	0		18	3139.574296	1.046524765
3	0	0		18	3121.574296	1.040524765
4	0	0		18	3103.574296	1.034524765
5	0	0		18	3085.574296	1.028524765
6	0	0		18	3067.574296	1.022524765
7	0	0		18	3049.574296	1.016524765
8	0	0		18	3031.574296	1.010524765
9	0	0		18	3013.574296	1.004524765
10	0	0		18	2995.574296	0.998524765

11	0	0		18	2977.574296	0.992524765
12	0	0		18	2959.574296	0.986524765
13	0	0		18	2941.574296	0.980524765
14	0	0		18	2923.574296	0.974524765
15	0	0		18	2905.574296	0.968524765
16	0	0		18	2887.574296	0.962524765
17	0	0		18	2869.574296	0.956524765
18	0	0		18	2851.574296	0.950524765
19	0	0		18	2833.574296	0.944524765
20	0	0		18	2815.574296	0.938524765
21	0	0		18	2797.574296	0.932524765
22	0	0		18	2779.574296	0.926524765
23	0	0		18	2761.574296	0.920524765
24	0	0		18	2743.574296	0.914524765
25	0	0		18	2725.574296	0.908524765
26	0	0		18	2707.574296	0.902524765
27	0	0		18	2689.574296	0.896524765
28	0	0		18	2671.574296	0.890524765
29	0	0		18	2653.574296	0.884524765
30	0	0		18	2635.574296	0.878524765
Desember						
1	0	0		18	2617.574296	0.872524765
2	0	0		18	2599.574296	0.866524765
3	7	97.5018345		18	2679.07613	0.893025377
4	0	0		18	2661.07613	0.887025377
5	0	0		18	2643.07613	0.881025377
6	0	0		18	2625.07613	0.875025377
7	0	0		18	2607.07613	0.869025377
8	0	0		18	2589.07613	0.863025377
9	0	0		18	2571.07613	0.857025377
10	0	0		18	2553.07613	0.851025377
11	0	0		18	2535.07613	0.845025377
12	0	0		18	2517.07613	0.839025377
13	0	0		18	2499.07613	0.833025377
14	0	0		18	2481.07613	0.827025377
15	0	0		18	2463.07613	0.821025377
16	0	0		18	2445.07613	0.815025377
17	20	278.57667		18	2705.6528	0.901884267
18	0	0		18	2687.6528	0.895884267
19	0	0		18	2669.6528	0.889884267
20	0	0		18	2651.6528	0.883884267
21	0	0		18	2633.6528	0.877884267
22	0	0		18	2615.6528	0.871884267
23	0	0		18	2597.6528	0.865884267
24	0	0		18	2579.6528	0.859884267
25	0	0		18	2561.6528	0.853884267
26	0	0		18	2543.6528	0.847884267
27	0	0		18	2525.6528	0.841884267
28	0	0		18	2507.6528	0.835884267
29	50	696.441675		0	3204.094475	1.068031492
30	80	1114.30668		0	4318.401155	1.439467052
31	0	0		0	4318.401155	1.439467052

## ROBOTIKA ITS

TANGGAL	R (mm)					
Januari	R (mm)	Vol. I (m3)	Vol O 1	Vol O (m3)	DS (m3)	tinggi air (m)
1	38	445.815867		0	5470.348397	2.188139359
2	30	351.959895	1200	0	4622.308292	1.848923317
3	12	140.783958		0	4763.09225	1.9052369
4	65	762.579773	1200	0	4325.672023	1.730268809
5	0	0		0	4325.672023	1.730268809
6	0	0		0	4325.672023	1.730268809
7	22	258.103923		0	4583.775946	1.833510378
8	0	0		0	4583.775946	1.833510378
9	0	0		0	4583.775946	1.833510378
10	0	0		0	4583.775946	1.833510378
11	0	0		18	4565.775946	1.826310378
12	0	0		18	4547.775946	1.819110378
13	0	0		18	4529.775946	1.811910378
14	0	0		18	4511.775946	1.804710378
15	42	492.743853		0	5004.519799	2.001807919
16	0	0		0	5004.519799	2.001807919
17	0	0		0	5004.519799	2.001807919
18	26	305.031909		0	5309.551708	2.123820683
19	47	551.403836	1200	0	4660.955543	1.864382217
20	0	0		0	4660.955543	1.864382217
21	22	258.103923		0	4919.059466	1.967623786
22	30	351.959895		0	5271.019361	2.108407744
23	14	164.247951		0	5435.267312	2.174106925
24	0	0		0	5435.267312	2.174106925
25	11	129.051962		0	5564.319274	2.225727709
26	0	0		0	5564.319274	2.225727709
27	62	727.383783	1200	0	5091.703057	2.036681223
28	66	774.311769		0	5866.014826	2.34640593
29	58	680.455797	1200	0	5346.470623	2.138588249
30	0	0		0	5346.470623	2.138588249
31	0	0		0	5346.470623	2.138588249
Februari						
1	0	0		0	5346.470623	2.138588249
2	8	93.855972		0	5440.326595	2.176130638
3	15	175.979948		0	5616.306542	2.246522617
4	25	293.299913	1200	0	4709.606455	1.883842582
5	0	0		0	4709.606455	1.883842582
6	0	0		0	4709.606455	1.883842582
7	0	0		0	4709.606455	1.883842582
8	0	0		18	4691.606455	1.876642582
9	0	0		18	4673.606455	1.869442582
10	0	0		18	4655.606455	1.862242582
11	7	82.1239755		0	4737.73043	1.895092172
12	0	0		0	4737.73043	1.895092172
13	0	0		0	4737.73043	1.895092172
14	20	234.63993		0	4972.37036	1.988948144
15	19	222.907934		0	5195.278294	2.078111317
16	0	0		0	5195.278294	2.078111317
17	45	527.939843	1200	0	4523.218136	1.809287254
18	0	0		0	4523.218136	1.809287254
19	0	0		0	4523.218136	1.809287254
20	0	0		0	4523.218136	1.809287254
21	0	0		18	4505.218136	1.802087254
22	0	0		18	4487.218136	1.794887254
23	0	0		18	4469.218136	1.787687254
24	0	0		18	4451.218136	1.780487254
25	25	293.299913		0	4744.518049	1.897807219
26	10	117.319965		0	4861.838014	1.944735205
27	50	586.599825		0	5448.437839	2.179375135
28	38	445.815867		0	5894.253706	2.357701482
Maret						
1	0	0		0	5894.253706	2.357701482
2	0	0		0	5894.253706	2.357701482
3	8	93.855972		0	5988.109678	2.395243871
4	12	140.783958	1200	0	4928.893636	1.971557454
5	0	0		0	4928.893636	1.971557454
6	10	117.319965		0	5046.213601	2.01848544
7	0	0		0	5046.213601	2.01848544
8	0	0		0	5046.213601	2.01848544
9	10	117.319965		0	5163.533566	2.065413426

10	18	211.175937		0	5374.709503	2.149883801
11	22	258.103923		0	5632.813426	2.25312537
12	35	410.619878	1200	0	4843.433303	1.937373321
13	20	234.63993		0	5078.073233	2.031229293
14	25	293.299913	1200	0	4171.373146	1.668549258
15	40	469.27986	1200	0	3440.653006	1.376261202
16	25	293.299913		0	3733.952918	1.493581167
17	21	246.371927		0	3980.324845	1.592129938
18	20	234.63993		0	4214.964775	1.68598591
19	35	410.619878	1200	0	3425.584652	1.370233861
20	0	0		0	3425.584652	1.370233861
21	0	0		0	3425.584652	1.370233861
22	0	0		0	3425.584652	1.370233861
23	0	0		18	3407.584652	1.363033861
24	0	0		18	3389.584652	1.355833861
25	0	0		18	3371.584652	1.348633861
26	0	0		18	3353.584652	1.341433861
27	0	0		18	3335.584652	1.334233861
28	53	621.795815		0	3957.380467	1.582952187
29	25	293.299913		0	4250.680379	1.700272152
30	0	0		0	4250.680379	1.700272152
31	0	0		0	4250.680379	1.700272152
April						
1	30	351.959895	1200	0	3402.640274	1.36105611
2	10	117.319965		0	3519.960239	1.407984096
3	0	0		0	3519.960239	1.407984096
4	12	140.783958		0	3660.744197	1.464297679
5	0	0		0	3660.744197	1.464297679
6	30	351.959895		0	4012.704092	1.605081637
7	0	0		0	4012.704092	1.605081637
8	20	234.63993		0	4247.344022	1.698937609
9	22	258.103923		0	4505.447945	1.802179178
10	0	0		0	4505.447945	1.802179178
11	0	0		0	4505.447945	1.802179178
12	0	0		18	4487.447945	1.794979178
13	12	140.783958		0	4628.231903	1.851292761
14	6	70.391979		18	4680.623882	1.872249553
15	20	234.63993		0	4915.263812	1.966105525
16	25	293.299913	1200	0	4008.563725	1.60342549
17	0	0		0	4008.563725	1.60342549
18	0	0		0	4008.563725	1.60342549
19	8	93.855972		0	4102.419697	1.640967879
20	7	82.1239755		0	4184.543672	1.673817469
21	5	58.6599825		0	4243.203655	1.697281462
22	0	0		0	4243.203655	1.697281462
23	80	938.55972		0	5181.763375	2.07270535
24	0	0		0	5181.763375	2.07270535
25	0	0		0	5181.763375	2.07270535
26	0	0		0	5181.763375	2.07270535
27	0	0		18	5163.763375	2.06550535
28	5	58.6599825		0	5222.423357	2.088969343
29	0	0		0	5222.423357	2.088969343
30	0	0		0	5222.423357	2.088969343

Mei						
1	10	117.319965	1200	0	4139.743322	1.655897329
2	0	0		0	4139.743322	1.655897329
3	0	0		0	4139.743322	1.655897329
4	0	0		0	4139.743322	1.655897329
5	0	0		18	4121.743322	1.648697329
6	0	0		18	4103.743322	1.641497329
7	0	0		18	4085.743322	1.634297329
8	0	0		18	4067.743322	1.627097329
9	20	234.63993		0	4302.383252	1.720953301
10	12	140.783958		0	4443.16721	1.777266884
11	0	0		0	4443.16721	1.777266884
12	18	211.175937		0	4654.343147	1.861737259
13	0	0		0	4654.343147	1.861737259
14	47	551.403836		0	5205.746983	2.082298793
15	0	0		0	5205.746983	2.082298793
16	0	0		0	5205.746983	2.082298793
17	0	0		0	5205.746983	2.082298793
18	0	0		18	5187.746983	2.075098793
19	0	0		18	5169.746983	2.067898793
20	19	222.907934		0	5392.654916	2.157061966
21	8	93.855972		0	5486.510888	2.194604355
22	10	117.319965	1200	0	4403.830853	1.761532341
23	12	140.783958		0	4544.614811	1.817845924
24	70	821.239755		0	5365.854566	2.146341826
25	0	0		0	5365.854566	2.146341826
26	0	0		0	5365.854566	2.146341826
27	42	492.743853		0	5858.598419	2.343439368
28	25	293.299913	1200	0	4951.898332	1.980759333
29	0	0		0	4951.898332	1.980759333
30	0	0		0	4951.898332	1.980759333
31	0	0		0	4951.898332	1.980759333
Juni						
1	0	0		18	4933.898332	1.973559333
2	0	0		18	4915.898332	1.966359333
3	15	175.979948		0	5091.878279	2.036751312
4	0	0		0	5091.878279	2.036751312
5	0	0		0	5091.878279	2.036751312
6	25	293.299913		0	5385.178192	2.154071277
7	17	199.443941		0	5584.622132	2.233848853
8	0	0		0	5584.622132	2.233848853
9	5	58.6599825		0	5643.282115	2.257312846
10	0	0		0	5643.282115	2.257312846
11	0	0		0	5643.282115	2.257312846
12	0	0		0	5643.282115	2.257312846
13	0	0		18	5625.282115	2.250112846
14	5	58.6599825		0	5683.942097	2.273576839
15	39	457.547864	1200	0	4941.489961	1.976595984
16	0	0		0	4941.489961	1.976595984
17	0	0		0	4941.489961	1.976595984
18	52	610.063818	1200	0	4351.553779	1.740621511
19	0	0		0	4351.553779	1.740621511
20	0	0		0	4351.553779	1.740621511
21	0	0		0	4351.553779	1.740621511
22	0	0		18	4333.553779	1.733421511
23	0	0		18	4315.553779	1.726221511
24	0	0		18	4297.553779	1.719021511
25	0	0		0	4297.553779	1.719021511
26	8	93.855972		0	4391.409751	1.7565639
27	15	175.979948		0	4567.389698	1.826955879
28	41	481.011857		0	5048.401555	2.019360622
29	0	0		0	5048.401555	2.019360622
30	0	0		0	5048.401555	2.019360622
Juli						
1	0	0		0	5048.401555	2.019360622
2	0	0		18	5030.401555	2.012160622
3	65	762.579773	1200	0	4592.981327	1.837192531
4	0	0		0	4592.981327	1.837192531
5	0	0		0	4592.981327	1.837192531
6	0	0		0	4592.981327	1.837192531
7	0	0		18	4574.981327	1.829992531
8	0	0		18	4556.981327	1.822792531
9	0	0		18	4538.981327	1.815592531
10	0	0		18	4520.981327	1.808392531

11	0	0		18	4502.981327	1.801192531
12	0	0		18	4484.981327	1.793992531
13	0	0		18	4466.981327	1.786792531
14	0	0		18	4448.981327	1.779592531
15	0	0		18	4430.981327	1.772392531
16	0	0		18	4412.981327	1.765192531
17	0	0		18	4394.981327	1.757992531
18	0	0		18	4376.981327	1.750792531
19	0	0		18	4358.981327	1.743592531
20	0	0		18	4340.981327	1.736392531
21	0	0		18	4322.981327	1.729192531
22	7	82.1239755		0	4405.105303	1.762042121
23	0	0		0	4405.105303	1.762042121
24	0	0		0	4405.105303	1.762042121
25	0	0		0	4405.105303	1.762042121
26	0	0		18	4387.105303	1.754842121
27	0	0		18	4369.105303	1.747642121
28	0	0		18	4351.105303	1.740442121
29	0	0		18	4333.105303	1.733242121
30	0	0		18	4315.105303	1.726042121
31	0	0		18	4297.105303	1.718842121
Agustus						
1	0	0		18	4279.105303	1.711642121
2	0	0		18	4261.105303	1.704442121
3	0	0		18	4243.105303	1.697242121
4	0	0		18	4225.105303	1.690042121
5	0	0		18	4207.105303	1.682842121
6	0	0		18	4189.105303	1.675642121
7	0	0		18	4171.105303	1.668442121
8	0	0		18	4153.105303	1.661242121
9	0	0		18	4135.105303	1.654042121
10	0	0		18	4117.105303	1.646842121
11	0	0		18	4099.105303	1.639642121
12	0	0		18	4081.105303	1.632442121
13	0	0		18	4063.105303	1.625242121
14	0	0		18	4045.105303	1.618042121
15	0	0		18	4027.105303	1.610842121
16	0	0		18	4009.105303	1.603642121
17	0	0		18	3991.105303	1.596442121
18	0	0		18	3973.105303	1.589242121
19	0	0		18	3955.105303	1.582042121
20	0	0		18	3937.105303	1.574842121
21	0	0		18	3919.105303	1.567642121
22	0	0		18	3901.105303	1.560442121
23	0	0		18	3883.105303	1.553242121
24	0	0		18	3865.105303	1.546042121
25	0	0		18	3847.105303	1.538842121
26	0	0		18	3829.105303	1.531642121
27	0	0		18	3811.105303	1.524442121
28	0	0		18	3793.105303	1.517242121
29	0	0		18	3775.105303	1.510042121
30	0	0		18	3757.105303	1.502842121
31	0	0		18	3739.105303	1.495642121

September						
1	0	0		18	3721.105303	1.488442121
2	0	0		18	3703.105303	1.481242121
3	0	0		18	3685.105303	1.474042121
4	0	0		18	3667.105303	1.466842121
5	0	0		18	3649.105303	1.459642121
6	0	0		18	3631.105303	1.452442121
7	0	0		18	3613.105303	1.445242121
8	0	0		18	3595.105303	1.438042121
9	0	0		18	3577.105303	1.430842121
10	0	0		18	3559.105303	1.423642121
11	0	0		18	3541.105303	1.416442121
12	0	0		18	3523.105303	1.409242121
13	0	0		18	3505.105303	1.402042121
14	0	0		18	3487.105303	1.394842121
15	0	0		18	3469.105303	1.387642121
16	0	0		18	3451.105303	1.380442121
17	0	0		18	3433.105303	1.373242121
18	0	0		18	3415.105303	1.366042121
19	0	0		18	3397.105303	1.358842121
20	0	0		18	3379.105303	1.351642121
21	0	0		18	3361.105303	1.344442121
22	0	0		18	3343.105303	1.337242121
23	0	0		18	3325.105303	1.330042121
24	0	0		18	3307.105303	1.322842121
25	0	0		18	3289.105303	1.315642121
26	0	0		18	3271.105303	1.308442121
27	0	0		18	3253.105303	1.301242121
28	0	0		18	3235.105303	1.294042121
29	0	0		18	3217.105303	1.286842121
30	0	0		18	3199.105303	1.279642121
Oktober						
1	0	0		18	3181.105303	1.272442121
2	0	0		18	3163.105303	1.265242121
3	0	0		18	3145.105303	1.258042121
4	0	0		18	3127.105303	1.250842121
5	0	0		18	3109.105303	1.243642121
6	0	0		18	3091.105303	1.236442121
7	0	0		18	3073.105303	1.229242121
8	0	0		18	3055.105303	1.222042121
9	0	0		18	3037.105303	1.214842121
10	0	0		18	3019.105303	1.207642121
11	0	0		18	3001.105303	1.200442121
12	0	0		18	2983.105303	1.193242121
13	0	0		18	2965.105303	1.186042121
14	0	0		18	2947.105303	1.178842121
15	0	0		18	2929.105303	1.171642121
16	0	0		18	2911.105303	1.164442121
17	0	0		18	2893.105303	1.157242121
18	0	0		18	2875.105303	1.150042121
19	0	0		18	2857.105303	1.142842121
20	0	0		18	2839.105303	1.135642121
21	0	0		18	2821.105303	1.128442121
22	0	0		18	2803.105303	1.121242121
23	0	0		18	2785.105303	1.114042121
24	0	0		18	2767.105303	1.106842121
25	0	0		18	2749.105303	1.099642121
26	0	0		18	2731.105303	1.092442121
27	0	0		18	2713.105303	1.085242121
28	0	0		18	2695.105303	1.078042121
29	0	0		18	2677.105303	1.070842121
30	0	0		18	2659.105303	1.063642121
31	0	0		18	2641.105303	1.056442121
November						
1	0	0		18	2623.105303	1.049242121
2	0	0		18	2605.105303	1.042042121
3	0	0		18	2587.105303	1.034842121
4	0	0		18	2569.105303	1.027642121
5	0	0		18	2551.105303	1.020442121
6	0	0		18	2533.105303	1.013242121
7	0	0		18	2515.105303	1.006042121
8	0	0		18	2497.105303	0.998842121
9	0	0		18	2479.105303	0.991642121
10	0	0		18	2461.105303	0.984442121



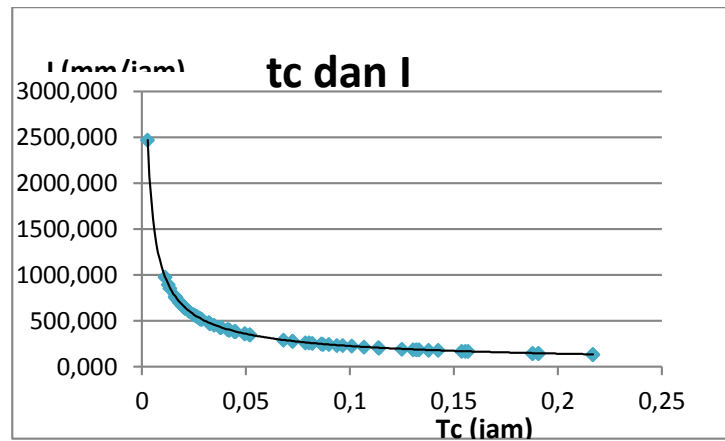
11	0	0		18	2443.105303	0.977242121
12	0	0		18	2425.105303	0.970042121
13	0	0		18	2407.105303	0.962842121
14	0	0		18	2389.105303	0.955642121
15	5	58.6599825		0	2447.765285	0.979106114
16	10	117.319965		0	2565.08525	1.0260341
17	5	58.6599825		0	2623.745233	1.049498093
18	0	0		0	2623.745233	1.049498093
19	0	0		0	2623.745233	1.049498093
20	15	175.979948		0	2799.72518	1.119890072
21	0	0		0	2799.72518	1.119890072
22	10	117.319965		0	2917.045145	1.166818058
23	0	0		0	2917.045145	1.166818058
24	0	0		0	2917.045145	1.166818058
25	7	82.1239755		0	2999.169121	1.199667648
26	30	351.959895		0	3351.129016	1.340451606
27	0	0		0	3351.129016	1.340451606
28	15	175.979948		0	3527.108963	1.410843585
29	20	234.63993		0	3761.748893	1.504699557
30	0	0		0	3761.748893	1.504699557
Desenber						
1	0	0		0	3761.748893	1.504699557
2	15	175.979948		0	3937.728841	1.575091536
3	0	0		0	3937.728841	1.575091536
4	0	0		0	3937.728841	1.575091536
5	31	363.691892		0	4301.420732	1.720568293
6	10	117.319965		0	4418.740697	1.767496279
7	0	0		0	4418.740697	1.767496279
8	25	293.299913		0	4712.04061	1.884816244
9	6	70.391979		0	4782.432589	1.912973035
10	5	58.6599825		0	4841.092571	1.936437028
11	10	117.319965		0	4958.412536	1.983365014
12	15	175.979948		0	5134.392484	2.053756993
13	20	234.63993		0	5369.032414	2.147612965
14	40	469.27986	1200	0	4638.312274	1.855324909
15	20	234.63993		0	4872.952204	1.949180881
16	62	727.383783	1200	0	4400.335987	1.760134395
17	30	351.959895		0	4752.295882	1.900918353
18	0	0		0	4752.295882	1.900918353
19	0	0		0	4752.295882	1.900918353
20	0	0		0	4752.295882	1.900918353
21	0	0		18	4734.295882	1.893718353
22	0	0		18	4716.295882	1.886518353
23	0	0		18	4698.295882	1.879318353
24	0	0		18	4680.295882	1.872118353
25	0	0		18	4662.295882	1.864918353
26	0	0		18	4644.295882	1.857718353
27	0	0		18	4626.295882	1.850518353
28	0	0		18	4608.295882	1.843318353
29	0	0		18	4590.295882	1.836118353
30	0	0		18	4572.295882	1.828918353
31	0	0		18	4554.295882	1.821718353

## SPESIFIKASI PIPA INFLOW

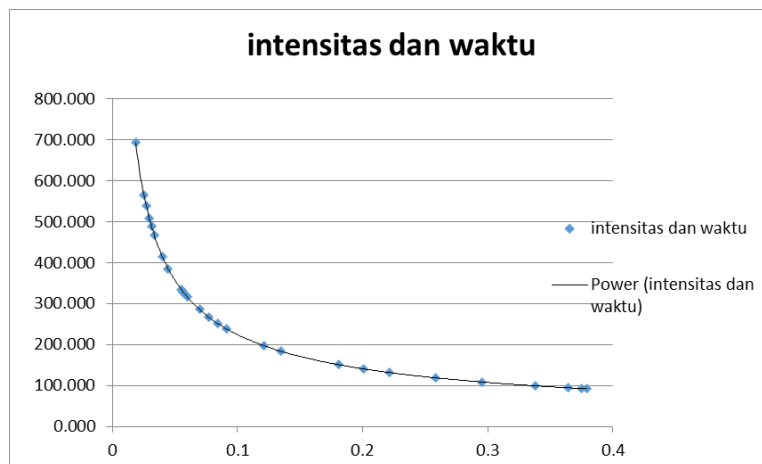
Pipe Size NB (Inch)	Eq. Metric Pipe Size NB (mm)	Outside Dia (Inch)	Outside Dia (mm)
1/8	6	0.405	10.3
1/4	8	0.540	13.7
3/8	10	0.675	17.1
1/2	15	0.840	21.3
3/4	20	1.050	26.7
1	25	1.315	33.4
*1¼	32	1.660	42.2
1½	40	1.900	48.3
2	50	2.375	60.3
*2½	65	2.875	73.0
3	80	3.500	88.9
*3½	90	4.000	101.6
4	100	4.500	114.3
*5	125	5.563	141.3
6	150	6.625	168.3
8	200	8.625	219.1
10	250	10.750	273.0
12	300	12.750	323.9
14	350	14.000	355.6
16	400	16.000	406.4
18	450	18.000	457.2
20	500	20.000	508.0
*22	550	22.000	558.8
24	600	24.000	609.6

## GRAFIK INTENSITAS VS WAKTU PADA SALURAN OUTFLOW UNTUK ANTISIPASI BANJIR

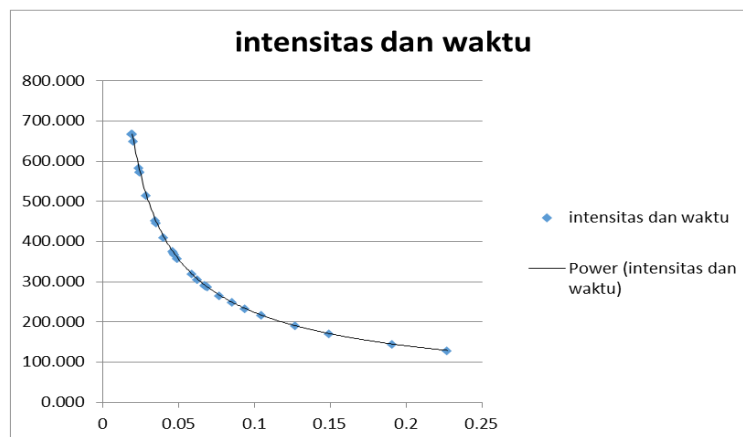
FTSLK OUTFLOW 1



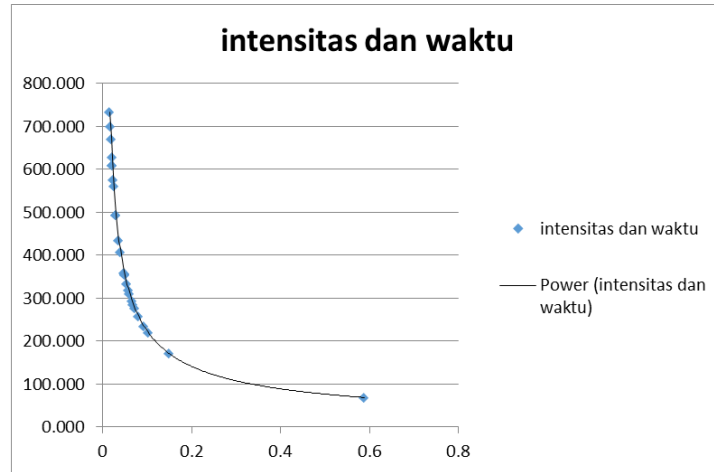
FTSLK OUTFLOW 2



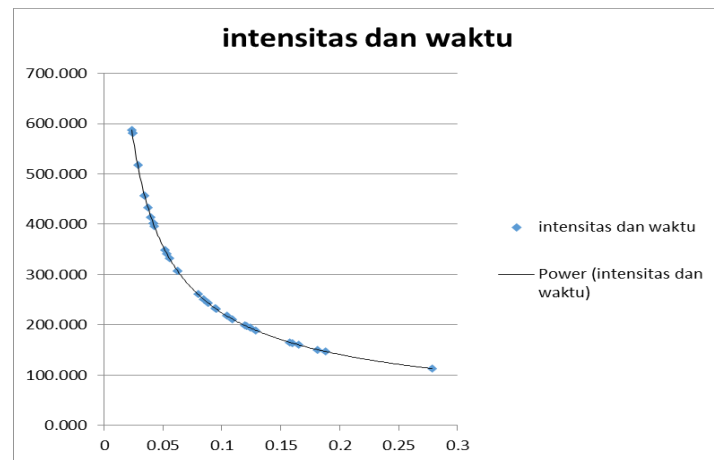
FTSLK OUTFLOW 3



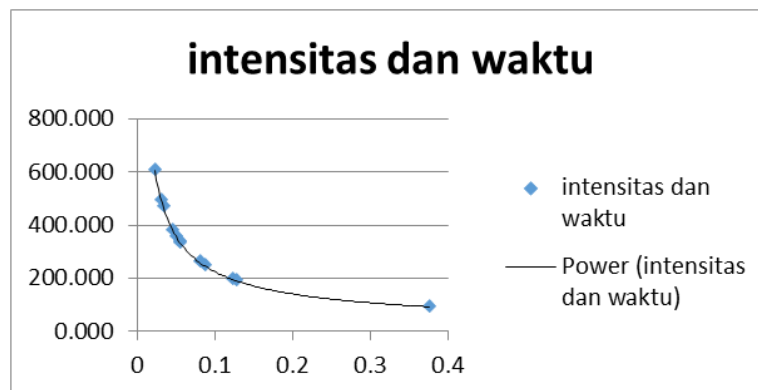
### FTK OUTFLOW 1



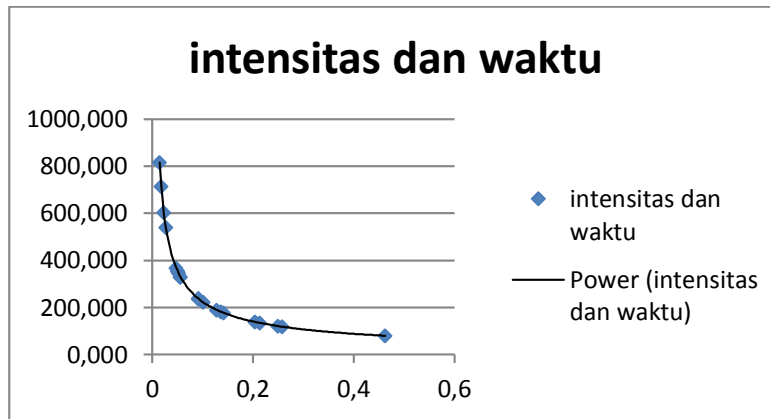
### FTK OUTFLOW 2



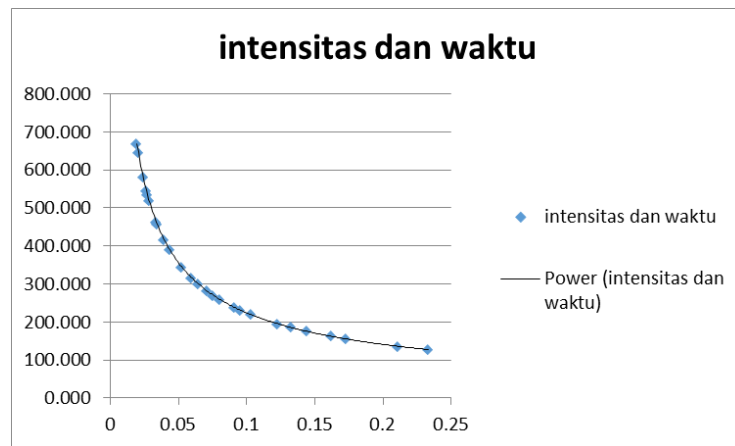
### FTK OUTFLOW 3



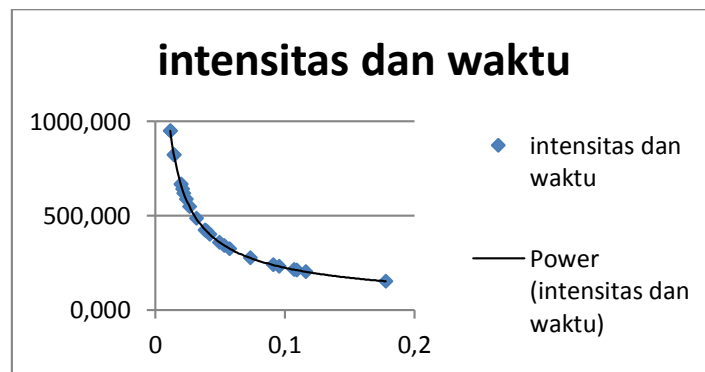
FTK OUTFLOW 4



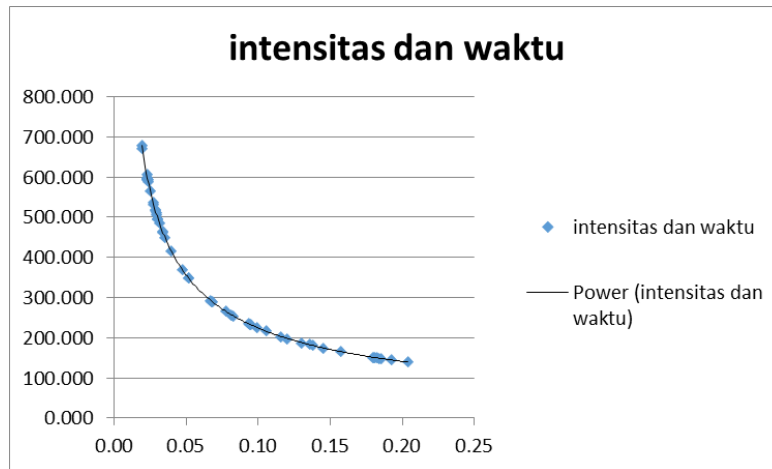
ROBOTIKA 1



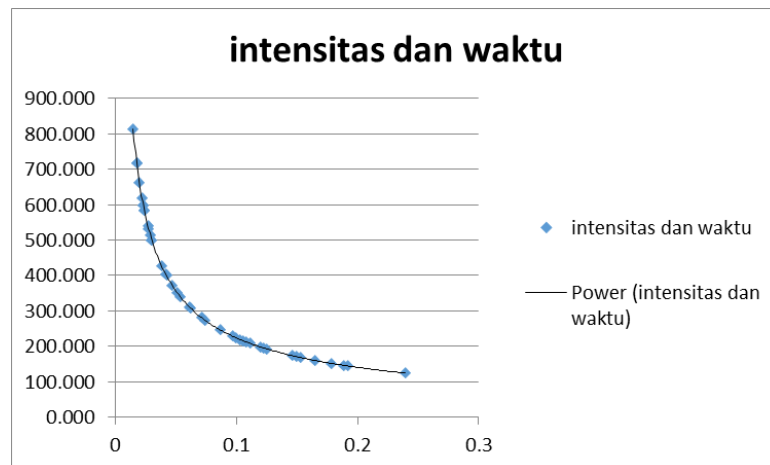
ROBOTIKA 2



## PERPUSTAKAAN 1



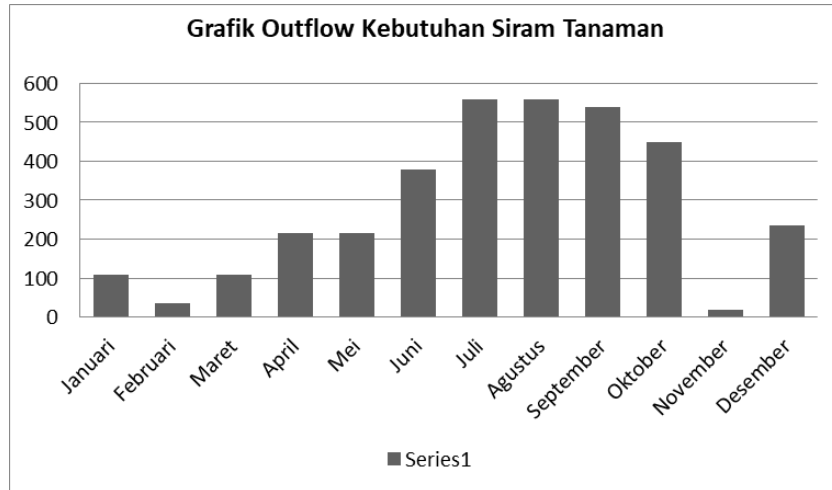
## PERPUSTAKAAN 2



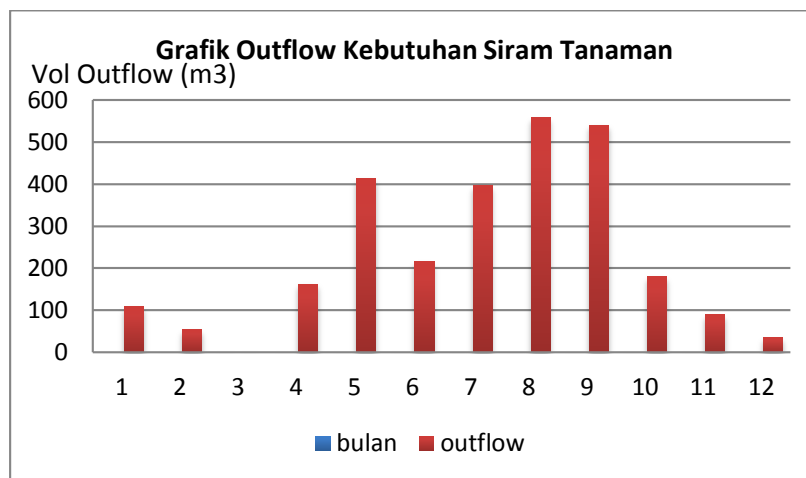
### GRAFIK KEBUTUHAN PENYIRAMAN TANAMAN VS BULAN

FTSLK (Taman alumni ITS), Perpustakaan ITS, Robotika dan FTK ITS.

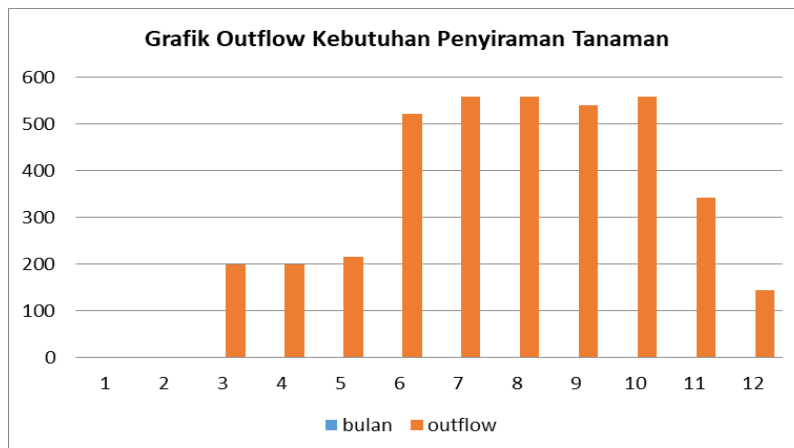
**Tahun 2000**



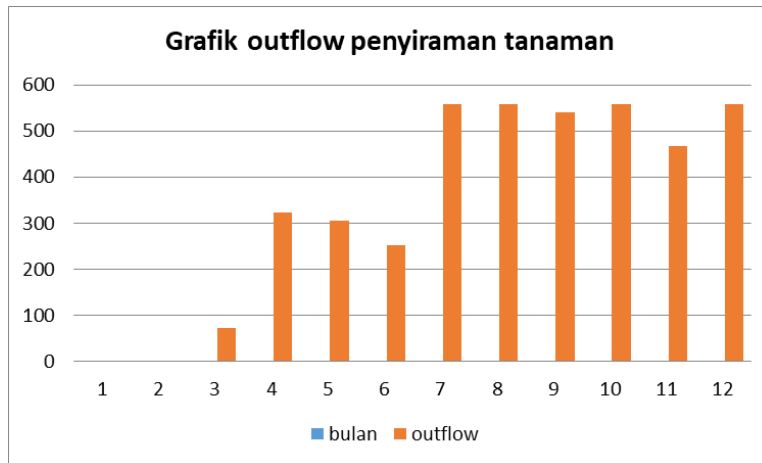
**Tahun 2001**



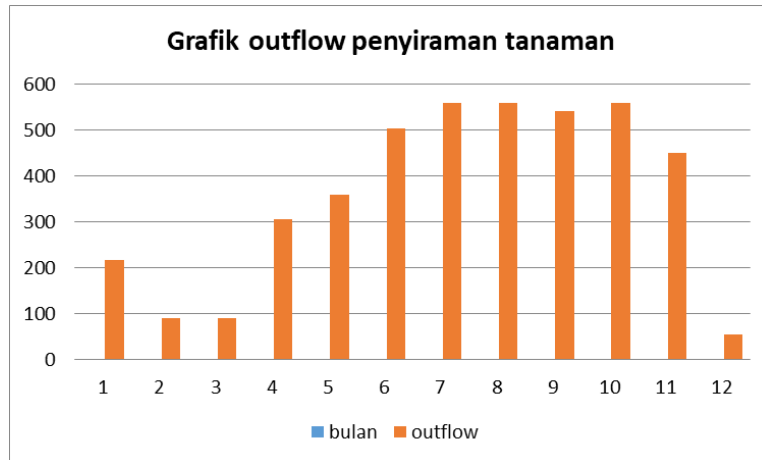
**Tahun 2002**



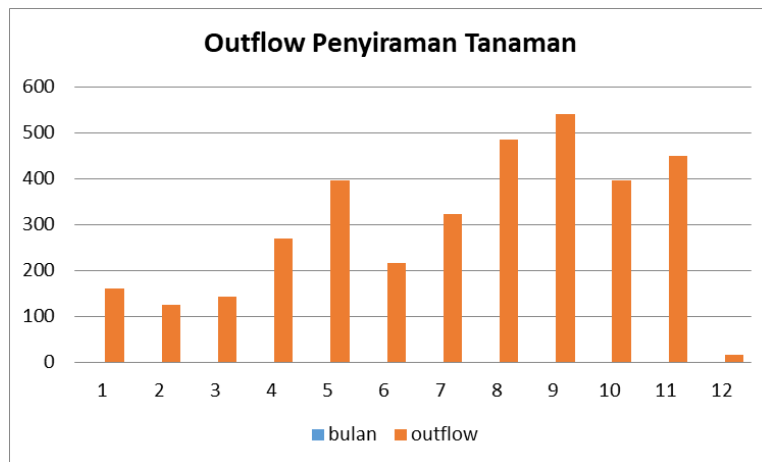
### Tahun 2003



### Tahun 2004

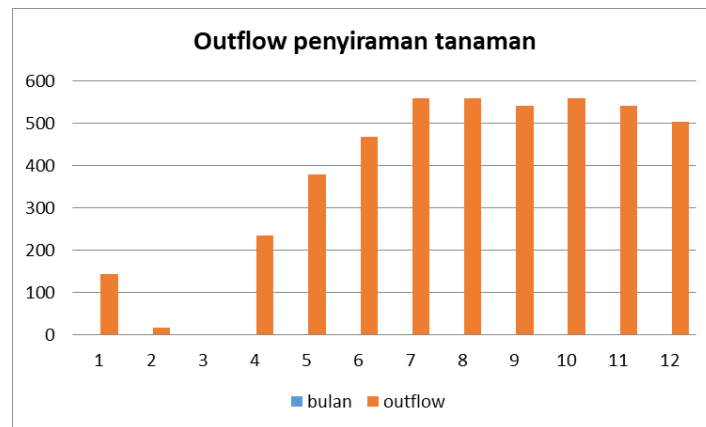


### Tahun 2005

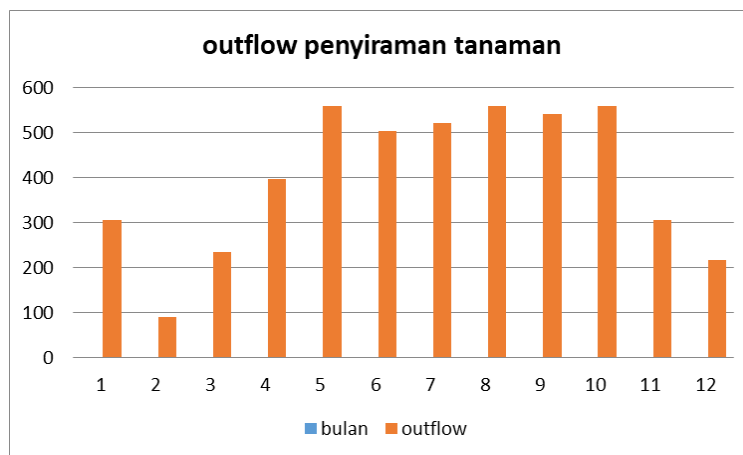




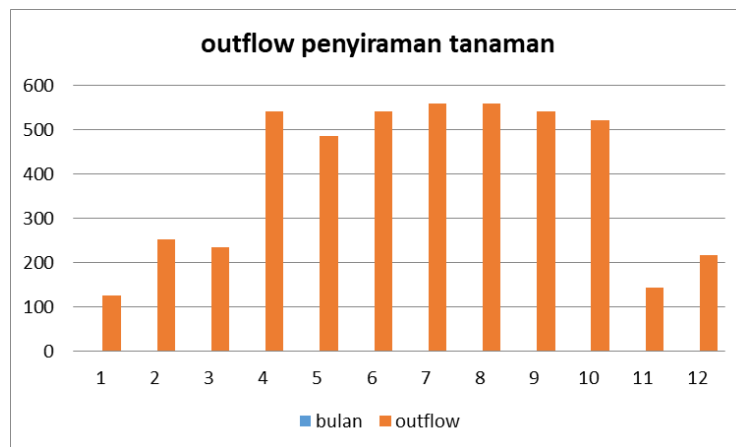
## Tahun 2006



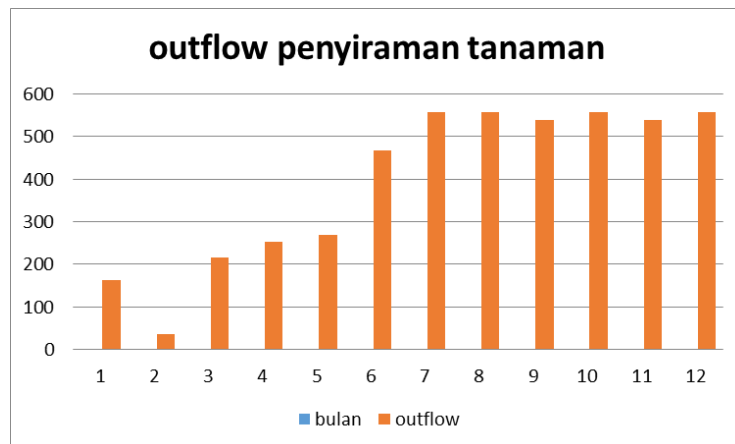
## Tahun 2007



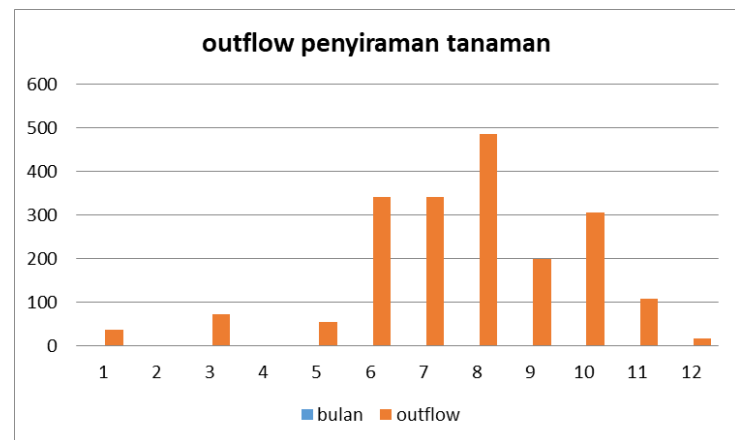
## Tahun 2008



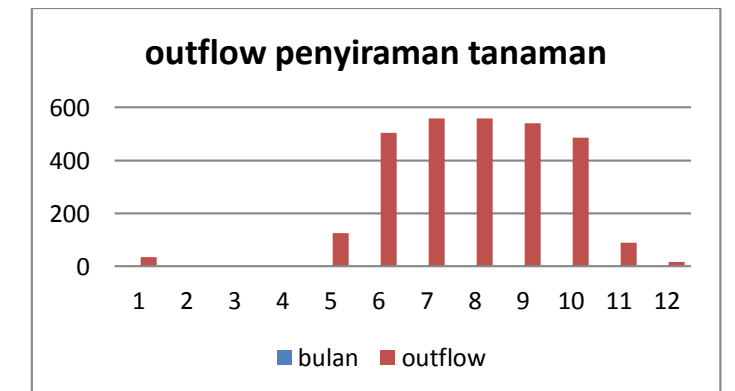
### Tahun 2009



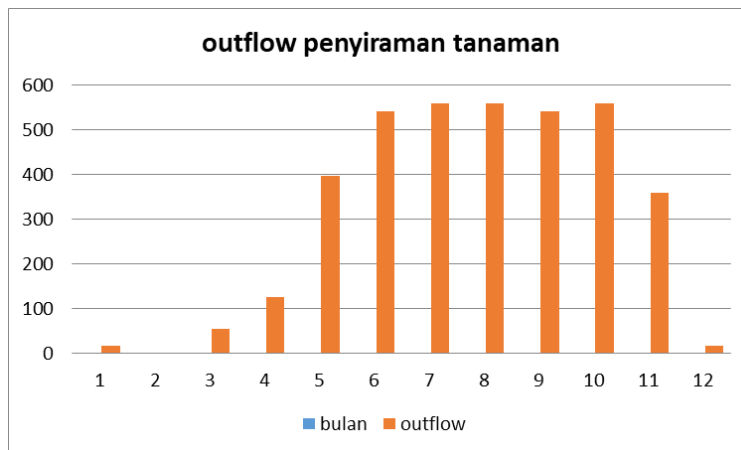
### Tahun 2010



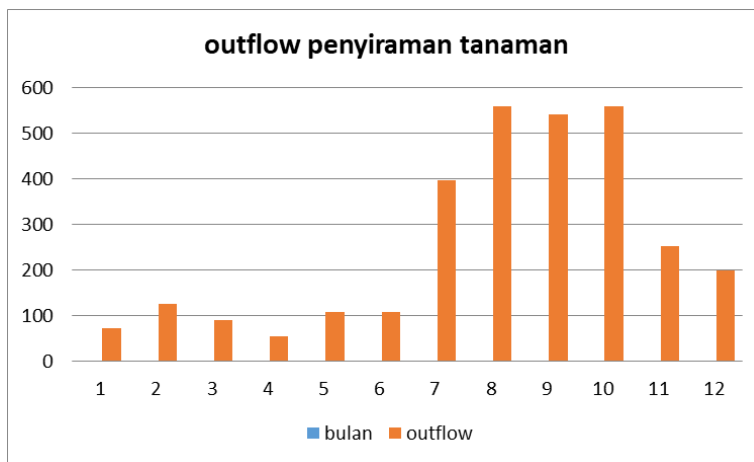
### Tahun 2011



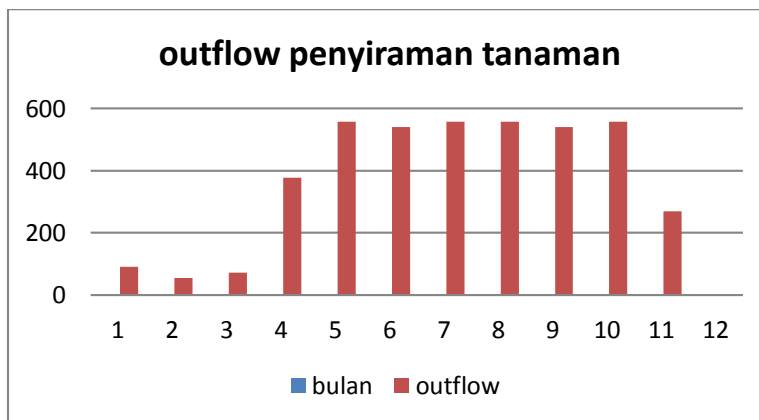
### Tahun 2012



### Tahun 2013







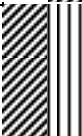











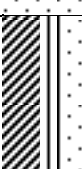


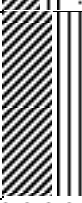








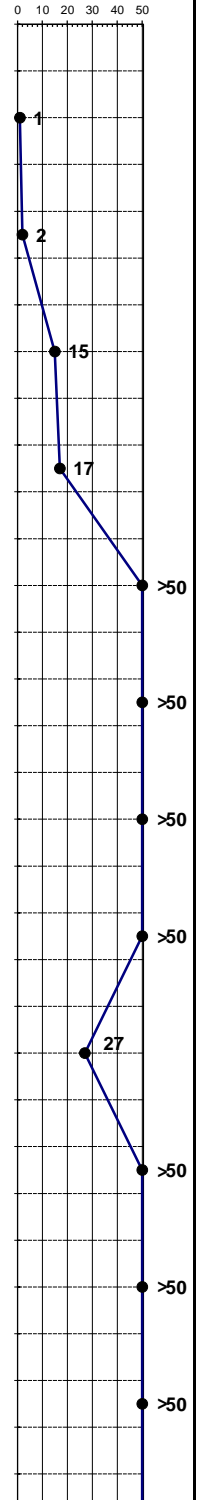
### Tahun 2014



## DRILLING LOG

Client	=	PT. ARKONIN	Type of Drilling	=	Rotary drilling machine	Remarks
Project Name	=	PEMBANGUNAN GEDUNG 10 LANTAI	Date Start	=	09 Juni 2012	UD = Undisturb Sample
Bore Hole Name	=	BH-1	Date End	=	11 Juni 2012	CS = Core Sample
Ground Water Level	=	0,65 METER	Driller	=	OSIAS	SPT = SPT Test
Project Location	=	KAMPUS F-MIPA ITS, SURABAYA				

Scale in m	Elevation (LWS) in m	Depth in m	Thickness in m	Legend	Type of Soil	Colour	Relative Density or Consistency	General Remarks	UD / CS		SPT TEST		Standard Penetration Test					N - Value			
									Depth in m	Sample Code	Depth in m	Sample Code	N-Value Blows/30 cm	Blows per each 15 cm							
														15 cm	15 cm	15 cm					
0.00	0.00	START OF BORING																			
1.00	-1.00				URUGAN	COKLAT TERANG	VERY SOFT	SPT = 0 TO 1			-2.00	 SPT 1	1	0	0	1		1			
2.00	-2.00				LEMPUNG	ABU-ABU TERANG							-2.50								
3.00	-3.00				PASIR BERLEMPUNG	ABU-ABU TERANG															
4.00	-4.00				LEMPUNG BERLANAU	ABU-ABU TERANG	SOFT	SPT = 2			-4.50	 SPT 2	2	0	1	1		2			
5.00	-5.00																				
6.00	-6.00																				
7.00	-7.00				LEMPUNG BERPASIR	ABU-ABU TERANG	STIFF	SPT = 15			-7.00	 SPT 3	15	2	6	9		15			
8.00	-8.00																				
9.00	-9.00																				
10.00	-10.00				PASIR BERKULIT KERANG	ABU-ABU TERANG	VERY STIFF	SPT = 17			-9.50	 SPT 4	17	5	7	10		17			
11.00	-11.00																				
12.00	-12.00																				
13.00	-13.00				PASIR PADAS	COKLAT TERANG	VERY HARD	SPT = >50			-12.00	 SPT 5	>50	4	10	18/4		>50			
14.00	-14.00																				
15.00	-15.00																				
16.00	-16.00																				
17.00	-17.00																				
18.00	-18.00																				
19.00	-19.00																				
20.00	-20.00																				
21.00	-21.00																				
22.00	-22.00				LEMPUNG LANAU BERPASIR	COKLAT TERANG	VERY STIFF	SPT = 27					-22.00	 SPT 9	27	9	12	15		27	
23.00	-23.00										-22.50										
24.00	-24.00																				
25.00	-25.00																				
26.00	-26.00				LEMPUNG BERLANAU	ABU-ABU TERANG					-27.00	 SPT 11	>50	7	19	20/10		>50			
27.00	-27.00										-27.50										
28.00	-28.00																				
29.00	-29.00				PASIR	ABU-ABU TERANG					-29.50	 SPT 12	>50	11	20	25/10		>50			
30.00	-30.00				LANAU LEMPUNG BERPASIR	ABU-ABU TERANG					-30.00										
31.00	-31.00																				



## DRILLING LOG

Client	=	PT. ARKONIN	Type of Drilling	=	Rotary drilling machine	Remarks
Project Name	=	PEMBANGUNAN GEDUNG 10 LANTAI	Date Start	=	09 Juni 2012	UD = Undisturb Sample
Bore Hole Name	=	BH-1	Date End	=	11 Juni 2012	CS = Core Sample
Ground Water Level	=	0,65 METER	Driller	=	OSIAS	SPT = SPT Test
Project Location	=	KAMPUS F-MIPA ITS, SURABAYA				

Scale in m	Elevation (LWS) in m	Depth in m	Thickness in m	Legend	Type of Soil	Colour	Relative Density or Consistency	General Remarks	UD / CS		SPT TEST		Standard Penetration Test				N - Value
									Depth in m	Sample Code	Depth in m	Sample Code	N-Value Blows/30 cm	15 cm	15 cm	15 cm	
32.00	-32.00								-32.00	UD 04	-32.00	SPT 13	>50	10	21	15/5	50
33.00	-33.00								-32.50		-32.50						
34.00	-34.00				LEMPUNG BERLANAU	ABU-ABU KECOKLATAN	VERY HARD	SPT = >50			-34.50	SPT 14	>50	12	19/5		50
35.00	-35.00										-35.00						
36.00	-36.00																
37.00	-37.00										-37.00	SPT 15	>50	9	18	33	50
38.00	-38.00				LEMPUNG LANAU BERPASIR	ABU-ABU KECOKLATAN					-37.50						
39.00	-39.00																
40.00	-40.00				PASIR	ABU-ABU KECOKLATAN			-40.00	UD 05	-40.00	SPT 16	>50	10	21	30	50
									-40.50		-40.50						

## REKAP HASIL TEST

**KLIEN** PT. ARKONIN  
**PROYEK** GEDUNG F-MIPA  
**LOKASI** KAMPUS F-MIPA ITS, KEPUTIH SUKOLILO  
SURABAYA

**TITIK** BH-1  
**MASTER BOR** P. OSIAS  
**TANGGAL** 11 JUNI 2012

DEPTH (Meter)	VOLUMETRI + GRAVIMETRI								CONSOLIDATION		
	Gs	e	Sr	Wc	n	$\gamma_t$	$\gamma_d$	$\gamma_{sat}$	Pp	Cc	Cv
-8.00	2.613	1.253	100.000	47.95	55.61	1.716	1.160	1.716	*	*	*
-16.00	2.583	0.688	100.000	26.64	40.76	1.938	1.530	1.938	*	*	*
-24.00	2.686	1.194	100.000	44.45	54.42	1.768	1.224	1.768	*	*	*
-32.00	2.625	0.932	100.000	35.50	48.24	1.841	1.359	1.841	*	*	*
-40.00	2.536	0.928	100.000	36.59	48.13	1.797	1.315	1.797	*	*	*

DEPTH (Meter)	SIEVE ANALYSIS			ATTERBERG LIMITS			STRENGTH			PERMEABILITAS
	G	S	S+CI	LL	PL	IP	$\phi$	C	Cu	
-8.00	0.00	4.25	95.75	56.64	31.67	24.97	0	*	0.650	*
-16.00	0.29	22.11	77.60	NP	NP	NP	38	*	*	*
-24.00	0.93	27.87	71.20	51.38	30.74	20.64	0	*	2.470	*
-32.00	0.86	27.37	71.77	63.33	33.19	30.14	0	*	2.526	*
-40.00	2.00	19.40	78.60	NP	NP	NP	0	*	3.250	*

**REMARK**

G	= Gravel (%)	LL	= Liquid Limit (%)	$\phi$	= Angle of internal friction (degree)
S	= Sand (%)	PL	= Plastic Limit (%)	C	= Cohesion (kg/cm <sup>2</sup> )
S + CI	= Silt + Clay (%)	IP	= Plastic Index (%)	Cu	= Cohesion Undrained (kg/cm <sup>2</sup> )
Gs	= Specific Gravity	W <sub>c</sub>	= Water content (%)	$\gamma_{sat}$	= Saturated density (gr/cc)
e	= Void ratio	n	= Porosity (%)	$\gamma_d$	= Dry density (gr/cc)
Sr	= Degree of saturation (%)	$\gamma_t$	= Wet density (gr/cc)		
Pp	= Preconsolidation Pressure (kg/cm <sup>2</sup> )				
Cc	= Compression Index				
Cv	= Compression of Consolidation (cm <sup>2</sup> /det)				
*	= Not test				